APPENDIX G

PRELIMINARY NORTHEAST U.S. MARKET ASSESSMENT - AQUACULTURE SUPPLIES AND SERVICES

92-00739/

PRELIMINARY NORTHEAST U.S. MARKET ASSESSMENT - AQUACULTURE SUPPLIES AND SERVICES

March, 1990

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Project Number: **90346**

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EXECUTIVE SUMMARY

The Northeast U.S. Market for the following P.E.I. aquaculture supplies and services was assessed: mussel processing equipment; mussel consulting services; and other supplies and services.

The replacement market for mussel processing equipment appears to hold more potential for P.E.I. manufacturers than the new processing facility equipment market does. Competitors in this market include large European and Nova Scotia-based manufacturers, as well as local U.S. welding and fabrication companies. P.E.I. mussel processing manufacturers should market their products in the U.S. using direct mail-outs to the larger U.S. mussel processors, making personal sales presentations and identifying new mussel processing operations in the U.S. by speaking periodically with the government agencies and each state responsible for the issuing of new mussel processing permits.

The best market for cultured mussel consulting services is Maine, the largest mussel producing state in the U.S.. There is a potential to consult to U.S. and state government departments to help them develop cultured mussel marketing strategies, assess environmental factors, and help improve the efficiency of the industry. The second consulting market is to existing and potential off-bottom mussel culturing operations which are experiencing technical difficulties or lower than normal yields. To increase the exportability of their services, P.E.I. mussel consultants should:

- prepare company brochures;
- contact U.S. government officials and research facilities;
- contact mussel operations and industry associations;
- contact appropriate regulatory bodies which issue mussel culturing permits as a source of leads;
- establish alliances with existing Northeastern U.S. aquaculture consulting firms which do not currently have expertise in off-bottom mussel culturing; and

- attend industry conferences to increase company exposure.

In this report, the Maine, New York, Massachusetts, Rhode Island, Vermont and New Hampshire markets for other aquaculture supplies and services markets are assessed. The specific market entry strategy to follow will vary greatly by product. In general, New York and Maine are the largest geographical market areas for targeting P.E.I. aquaculture-related equipment and services. Suggested trade magazines to advertise in, sources of direct mailing lists, and potential U.S. industry partners are presented in the report.

1.0 INTRODUCTION

This report presents a portion of the analysis conducted during a three-phase study of Northeastern United States Export Opportunities for Prince Edward Island Firms, in light of the Free Trade Agreement. It was produced by the DPA Group Inc., Halifax, in association with Smith Green & Associates, Charlottetown, and Enterprise Management Consultants, Charlottetown. The study was co-sponsored by the Prince Edward Island Department of Industry, and the Atlantic Canada Opportunities Agency (ACOA).

The following represents one of the preliminary market assessments carried out during the study. It is intended to provide information to existing and potential P.E.I. exporters regarding the Northeast U.S. market opportunities for aquaculture supplies and services, and point to further work required. The report is not intended to be a substitute for the independent market research that Island compaHP LaserJet+, 500+HPLAS500.PRSes has been assessed in terms of the following three broad categories: mussel processing equipment; mussel consulting services; and other supplies and services. The next three chapters discuss each of these markets in turn.

Chapter 5.0 - Next Steps, summarizes the activities that P.E.I. companies should undertake before going further.

2.0 MUSSEL PROCESSING EQUIPMENT

2.1 Background

There are a number of mussel processing equipment suppliers in Prince Edward Island capable of marketing their products to the Northeastern United States. Island companies produce a wide range of fish processing and handling equipment including sock strippers, declumpers, debissers, various types of conveyor systems and inspection tables.

Marketing efforts by these companies have been directed at both national and international markets. Typical marketing efforts to date include direct mailings, follow up equipment quotes and personal visits to the customer, depending on the level of interest expressed by the potential buyer. These companies, in most instances, sell directly to major customers and do not make extensive use of agents located in other countries. The primary reason for this approach is the difficulty associated with identifying, assessing, and solidifying an attractive agreement with a reputable agent. A number of P.E.I. companies indicate that they are planning to become more aggressive in marketing to international customers.

2.2 Target Markets

This section provides market information gathered during conversations with Government officials, mussel processors and equipment dealers located in:

- Massachusetts;
- Maine;
- New York; and
- Rhode Island.

2.2.1 Massachusetts

The major processor of mussels in Massachusetts is Blue Gold Ltd. located in Newport. Blue Gold processes and markets wild mussels harvested off Nantucket. The company utilizes a large ship for harvesting mussels which has facilities on board for declumping the mussels harvested. Debissing and packaging takes place at their Newport plant. Blue Gold packages mussels for the consumer market in a variety of package sizes, which are actively marketed to major urban centres in the United States.

There are a number of smaller mussel operations in Massachusetts that harvest mussels in addition to other fish species. The number of these small operations has decreased substantially over the past few years primarily due to competition from Blue Gold and other large operators in the New England area. These small mussel operations conduct limited processing. The fishermen do not enjoy the large economics of scale and considerable marketing budgets of the large operations.

Mr. Witticker, with the Department of Marine Resources, states that his department has become actively involved in seeking out new wild mussel beds in the region. An investigation is underway concerning a particular area which is expected to yield 100,000 bushels of wild mussels. Cultured mussel growers located in other states have recently found it difficult to compete with wild mussel operations in Massachusetts which have a seemingly unlimited supply and cheaper harvesting costs.

2.2.2 Maine

According to Mr. Bob Lewis, with the Statistical Branch of the Maine Department of Marine Resources, there are 25-30 operations officially registered in mussel aquaculture in the State. However, he believes the number of operation which are *actually operating on a commercial business* is considerably less. According to The Maine Directory of Wholesale Seafood Dealers and for Processors, 1989-1990, the following companies are involved in mussel processing in the state:

- A & J Shellfish, Waldoboma,
- Abandoned Farms, Inc., Damariscotta,
- William Atwood Lobster Co., Spruce Head,
- Cape Split Seafood, Addison,
- Dunham's Lobster Pot, Phillips,
- Dunhams Mussels, Deer Isle,
- FFM Inc. York,
- Fresh Catch Ltd., Bristol,
- Great Eastern Mussel Farms, Tennants Harbour,
- Maine Mariculture, Bristol,
- R & R Seafood Processing Inc., Bristol,
- Sea Breeze Lobsters Corp., Beals,
- Tight Rope Seafarms, Brooklin,
- Youngs' Lobster Pound, Belfast,
- Youngs' Shellfish Inc., Belfast,

Mr. Lewis states that the high number of wild mussels being harvested in Massachusetts, which are of acceptable quality with no pearls, has negatively affected Maine's cultured mussel industry, (most of which uses "bottom cultured" technology). In many cases the awareness of the consumer in distinguishing the difference between wild versus cultured mussels is not yet high enough to justify the price difference between the two mussel products.

The largest mussel processor in Maine is Great Eastern Mussels, located in Tennants Harbour. The company processes and markets live, shucked, oven-ready, vinegarette and salad mussels.

In speaking with Philip Averol, Director of the State's Fisheries Technology Division, the majority of small mussel processors, which mostly use home-made or make shift machinery for mussel processing, have been "laying low" until they have a better idea of where the industry is headed. Mr. Averol indicated the large mussel processing operations in New

England are already well equipped with mussel processing equipment. The majority of this equipment is purchased in Europe, primarily from Frankin, a large, well-established mussel processing equipment operation located in Denmark. According to Mr. Averol, Frankin's equipment has more or less set the standard for mussel processing equipment in the industry; Frankin's designs have reportedly been copied by other equipment manufacturers in the U.S. and Canada.

2.2.3 New York

According to Mr. Tom Drum, with the Department of Marine Resources in New York, there are no processing operations in the state. There is a small degree of harvesting taking place, however the landings of mussels have been very irregular.

The majority of mussels harvested in New York are either shipped directly to local fish markets or processing facilities located out of state. Mussels harvested in New York are wild; no cultured product is grown. Apparently, the level of technology used by New York mussel fishermen in separating mussels before they go to market is very rudimentary. Mr. Drum believes there would be little interest among New York mussel harvesters in buying sophisticated mussel processing equipment.

2.2.4 Rhode Island

There are two major mussel processing operations located in Rhode Island. These include New England Mussels, located in Warren, and American Mussels in Naragansit.

In speaking with Mr. Randy Neil, Manager of New England Mussels, he indicated that the majority of their equipment originates from their head office in Europe. The European operation is heavily involved in clam processing, and while the majority of New England Mussels' equipment was originally designed for clam processing, it has been effectively modified for mussel processing purposes.

In speaking with Ralph Bourjean, head of the Rhode Island Seafood Council, he stated that the majority of mussel processing equipment purchased by other Rhode Island mussel operations now comes from overseas.

2.2.5 *Specific Market Segments*

There are two basic markets for mussel processing equipment in the U.S. -- new equipment sold to start-up operations or those that are expanding, and the replacement equipment market.

New Equipment Market

The market for new mussel processing equipment to New England processors appears limited. Most of the major processors in the area have already equipment in place; few seem to be planning to add new equipment to their lines in the near future. According to our contacts, the useful life for this equipment can be up to twenty years. Most of the major mussel processing operations we spoke with were not running at capacity now, and indicated that minor modifications to their existing equipment would be all that was necessary if capacity became a problem.

The large processors we spoke with in Northeastern United States had only a limited awareness of P.E.I. mussel processing equipment manufacturers; the majority of their mussel processing equipment is now purchased from European countries.

Replacement Market

The replacement market for mussel processing equipment appears to hold potential for Prince Edward Island manufacturers. The major obstacles to be overcome in pursuing this market include:

- producing replacement parts which are compatible with existing machines. In many instances, considerable time must be spent in examining the design specifications and duplicating individual parts which need replacing on an annual basis; and

- the repair market requires considerable "hands on" service. Providing this technical service is likely to be difficult given the geographical separation of Island manufacturers from the Northeast U.S.

2.3 Competitive Analysis

The primary competitors to the P.E.I. based manufacturers include suppliers with well-established reputations located in Europe as well as operations such as IMF and ABCO located in Nova Scotia.

Some of the agents supplying fish processing equipment in the Northeast U.S. include:

- Neptune Machinery, North Kingston, Rhode Island;
- General Fish Machine Company, Wakefield, Massachusetts; and
- Baader North America, Dartmouth, Nova Scotia.

General Fish Machine Company manufactures fish scaling machinery and also acts in an agent capacity for Swedish companies which sell net washers and other equipment to the aquaculture industry. The company provides mussel equipment to the New England market and has, in the past, had some contact with Island-based equipment manufacturers' concerning their product lines.

Neptune Machinery sells mussels sorters and works with a company from Missouri which produces debissers and steaming equipment for the industry. Neptune Machinery indicated they would be interested in acting in an agent capacity for a Prince Edward Island company in pursuing the mussel industry. (In the Promotion section of this report,

however, direct selling by P.E.I. companies is recommended over selling through agents.) The company now buys and sells used equipment, designs new equipment, and is an agent for a Danish company.

Competition for making mussel processing equipment also comes from local U.S. welding and metal fabrication companies which, in many cases, are capable of making equipment modifications and repairs for existing mussel processing operations. However, these local firms are usually not capable of manufacturing complete pieces of equipment.

2.4 Suggested Strategies

Most of the current suppliers of mussel processing equipment to the U.S. offer a one year warranty and full back up service as part of this warranty; similar or better terms would be required of P.E.I. manufacturers. Equipment purchased by large mussel processors is either ordered using detailed specifications or purchased as a standard processing line. Many of the larger processors have made modifications to equipment used for other processing purposes to make it suitable for mussel processing.

Unfortunately, the level of sophistication of machinery used by small mussel processors is quite rudimentary. In most cases, mussels are declumped by hand or with a home-made tumbler which is attached to the back of the fishing vessel. Most of the smaller processors do limited processing, choosing instead to ship mussels directly to end markets before declumping or debissing takes place.

The northeast U.S. mussel processing operations we spoke with were generally not aware of Prince Edward Island's capabilities. The following promotional steps are suggested:

- direct mail-outs to small and large mussel processors indicating product specifications, prices, delivery dates, warranties and after sales service;

- sales presentations to these companies, if interest warrants a personal visit;

- flying a small number of representatives from large U.S. mussel operations to Prince Edward Island for a tour of manufacturing facilities. Funding assistance may be available from External Affairs Canada for this type of initiative; and

- P.E.I. manufacturers should periodically speak with the government agencies in each state responsible for the issuing of new permits to mussel processors. This would help to identify new mussel processor operations and provide solid leads for the manufacturers to follow.

Because of the small number of potential customers (there are perhaps only 20-25 significant mussel processors in the Northeast U.S.), and the fact that customization of the equipment is often involved, it is recommended that P.E.I mussel equipment manufacturers sell direct to the processors, rather than through distributors or agents.

Likewise, direct mail, follow-up phone calls and personal selling will prove to be more cost effective than some of the more "mass marketing" approaches available such as renting booth space at trade shows or placing ads in aquaculture trade magazines. The exception to this would be if a manufacturer wished to promote several other fish processing products in addition to those it offered to the mussel industry, or if a number of P.E.I. mussel industry suppliers (manufacturers, distributors, consultants) were to cooperatively promote themselves. In these cases, the cost of trade show participation and/or magazine ads could be justified and would be used to supplement the more important, direct approaches mentioned previously.

Prices charged for mussel processing equipment tend to vary substantially depending on the type of equipment purchased and the degree to which alterations are made to suit purchasers' particular needs. For example, a declumper and grader can range from $12,000 Cdn. and up, debissers are normally offered in two or three different sizes may range in cost from $15,000 to $30,000 Cdn, conveyors can cost between $500 and $10,000 Cdn depending on specifications, while inspection tables, depending on the type and size, sell

for $1,500 Cdn and up. U.S. Mussel processors we spoke with indicated that there should be no reason why Prince Edward Island manufacturers could not compete on a price basis with overseas equipment suppliers.

3.0 MUSSEL CONSULTING SERVICES

3.1 Background

There are currently two cultured mussel consulting firms on Prince Edward Island: Atlantic Mussel Consultants, Montague and Aquaculture Consulting Inc., Cardigan.

Atlantic Mussel Consultants (AMC) provides services in preliminary culture technology development related to intensive mussel culture, buoy design, anchorage systems, and harvesting equipment design. The owners have conducted seminars in Massachusetts, in Nova Scotia at the Technical University of Nova Scotia, Halifax, in Quebec City and in New Brunswick. A number of on-site operational assessments have also been completed by the company. Wayne Sommers, co-owner of AMC, has made informal visits to a couple of operations in Maine. Consulting is currently a secondary source of revenue for this company; the owners devote most of their energies to their mussel growing operation.

Mr. J. Van Den Brempt, owner of Aquaculture Consulting Inc., views his mussel consulting business in the same light as the owners of AMC. Although interested in conducting work in the U.S., he has not made a concentrated effort to get work in that area. Mr. Van Den Brempt is experienced in cultured mussel operations, particularly in regard to production systems, process design and spat collection systems; he also owns and operates his own mussel culturing operation.

3.2 Target Markets

It would appear that the best market for cultured mussel consulting services is Maine, the largest mussel producing state in the U.S.. Approximately 15% of mussels produced in this state are rope grown. However, bottom culturing, which is very similar to wild mussel harvesting, is still the most common growing and harvesting method. In Massachusetts, there has been a substantial increase in the volume of wild mussel harvesting which has

made it difficult for Maine mussel growers to compete, especially when consumers are not yet willing to pay the price difference for higher quality, bottom cultured mussels versus the wild product.

However, many people within the industry expect consumer preference to change to off-bottom mussels once people become better educated as to the differences in quality among the various products. Industry experts expect the number of off-bottom culturing operations in New England to increase as the wild mussel beds become depleted. Most of our contacts believe these changes will begin to take place within the next two to five years. When and if this occurs, the number of off-bottom culturing operations in the Northeast U.S. could increase substantially.

At present, off-bottom cultured mussel operations located in Maine are experiencing considerable difficulty in marketing their product. Reportedly, a number of these operations are looking for new species to grow and/or alternative sources of revenue. In light of this situation, the potential for consulting services to appropriate government departments may hold some potential. Developing cultured mussel marketing strategies, assessing the environmental appropriateness of establishing off-bottom mussel operations in a particular region, or working with research facilities involved in the mussel industry could represent potential market opportunities for P.E.I. mussel consultants.

The second consulting market area is existing and potential off-bottom mussel culturing operations. Existing mussel operations experiencing technical difficulties or lower than normal yields may benefit from the advice of successful P.E.I. mussel operation owners. Potential mussel growers would also benefit from this expertise. However, given the current situation in the New England mussel industry, these "end-user" consulting opportunities may be better pursued when the industry stabilizes.

3.3 Competitive Analysis

According to our market research, there is very little competitive activity in regard to cultured mussel consulting services in the U.S.. Pencove Mussels, located on Whitby Island, Washington has had considerable success in off-bottom cultured mussel operations and offers limited consulting services. However, to our knowledge no work has been performed in the Northeastern United States by this company.

3.4 Suggested Strategies

The following are suggested steps to be taken by P.E.I. mussel consultants to increase the exportability of their services:

- initially target marketing efforts at government/research-related consulting projects in mussel industry as opposed to the mussel operators themselves;
- increase awareness in the Northeastern U.S. through direct mail outs to appropriate government officials, existing operations, identified potential operations, research facilities, and industry associations.
- prepare a brochure which outlines the types of services offered, history and success of the company, work undertaken for past clients, etc. This information should be included with direct mail outs, and would be beneficial in both Canadian and U.S. promotion efforts.
- contact appropriate regulatory bodies which issue mussel culturing permits as a source of potential leads.
- establish alliances with existing Northeastern U.S. aquaculture consulting firms which do not currently have expertise in off-bottom mussel culturing.

Sub-contract arrangements may be possible through such alliances. This approach will increase the number of services these U.S. consulting companies can offer to their clients, while potentially furnishing P.E.I. companies with new leads.

- attend industry conferences to increase company exposure.

4.0 OTHER SUPPLIES AND SERVICES

4.1 Background

There are a number of companies on Prince Edward Island capable of supplying products and services to the Northeastern United States aquaculture industry. These companies include: Tech Holdings Inc., renamed Waterline, Aquahealth Limited, Diagnostic Chemicals Limited, Island Metal Fabricators, renamed Portoflex, Charlottetown Metal Products Limited, IMP Limited and Sure-Gain, a Division of Canada Packers Limited. Aquaculture consulting services are provided by Forsythe Aquaculture Consultants Inc.

The work being undertaken by Aquahealth Limited has already been discussed in the Phase II report. Diagnostic Chemicals Limited produces domoic acid from mussels and is capable of producing monoclonal antibodies production to diagnose viral or bacterial infections of salmonids.

While IMP Limited and Sur-Gain Division both have distribution outlets in Prince Edward Island, the manufacturing of their products related to the Aquaculture industry is done off-Island. The IMP manufacturing operation is located in Halifax where a number of net and rope products are produced. In the case of Sur-Gain Division, their plant in Truro which produces fish feed for salmon and trout farms.

The major, marketable products to the aquaculture industry in the U.S. come from Tech Holdings, Island Metal Fabricators or Portoflex, Charlottetown Metal Products and Forsythe Aquaculture Consultants Limited.

Tech Holdings, now called Waterline, is a supplier of tanks and water systems for land-based fish culture operations. The company is capable of producing turn-key recirculation systems, and energy efficient hatcheries and water systems based on heat recovery from ground water. In the past, the company has specialized in the design of hatcheries,

raceways, circular tanks, and glass-reinforced plastic applications. The firm is capable of designing water re-use biofiltration and modular tank systems, particularly for hatcheries. If requested, the company will also act in a consulting capacity on energy efficient hatchery systems and on biofiltration operations and design.

To date, Waterline has not marketed its products in the U.S. However, in speaking with the owner, Mr. Wayne Vantoever, he indicated that the company is currently developing a strategy to penetrate this market. He is optimistic about the potential for their products, especially water systems which prevent waste emissions from being discharged into the environment. This technology has become especially important given the recent increase in environmental concerns in the U.S. and Canada.

Charlottetown Metal Products has recently begun manufacturing aluminum sea cages for salmon farms. The company is currently in the development phase of this project and has not begun marketing activities.

Forsythe Aquaculture Consultants Inc. does work in water quality analysis for recirculation systems and in water analysis, and system design and configuration for water re-use. Mr. Forsythe, owner of the firm and president of the P.E.I. Trout Growers Association, also provides site selection consulting.

A detailed market assessment for each of the above product lines is outside the scope of this study. Instead a general overview of the aquaculture industry in Maine, New York, Massachusetts, Rhode Island, Vermont and New Hampshire is provided in the following section.

4.2 Target Markets

4.2.1 Maine

In Maine there has been a rapid increase in the number of aquaculture operations in the past few years. At present, there are roughly 20-25 trout and salmon farms in the state.

The trout and salmon grow out operations are generally sea cage facilities. Large farming operations may buy as many as 100 cages at a time, usually from overseas manufacturing facilities (Norway was mentioned) while the small, independent-type operations may make the cages themselves. Related fresh water fish hatcheries located in the state utilize both raceway and tank systems.

According to Dick Kline, past President of the Maine Aquaculture Association, the finfish aquaculture field is the fastest growing area, with a number of the larger companies vertically integrating from hatchery operations to grow out facilities and even to the marketing of their own product.

In speaking with the Executive Secretary of the Maine Aquaculture Association, Ms. Carol Yager, the following companies are the major salmon growers in the state:

- Mariculture Products, Elsworth;
- Maine Salmon, Eastport;
- Nelly B Fisheries, Eastport;
- Ocean Products, Portland;
- North Atlantic Aquaculture, Eastport;
- East Coast Fish Farms, Pembroke;
- Seafarms Lubec Inc., Lubec;
- Seafarms Associate, Brunswick;
- Brian Tarbox, Cumberland;

. . Rier Brothers Salmon Company.

While the primary source of revenue for these operations is salmon, a number of the companies are also involved in trout farming. The remaining aquaculture operations not listed above are generally small, individual operations, according to Ms. Yager.

The Maine Department of Marine Resources is doing work to determine the environmental effects of aquaculture operations on indigenous fish species normally fished in the area. The effects of aquaculture operations on the inland fishery is also being studied.

4.2.2 New York

The number of members of the New York State Aquaculture Association totals 60. Members consist of aquaculture operations involved in shellfish, bait, finfish hatcheries, and finfish farms. According to the North American Directory of Aquaculture, there are roughly 65 aquaculture operations involved in trout and salmon operations in the State. A list of these operations forms part of Appendix 3 to this report.

Mr. Phil Bradway, with the Department of Agriculture and Markets, Albany, New York, states that the aquaculture industry in the state is growing both in volume of product produced and in the number of operators involved. There is concern that the industry could soon face an over-supply situation. Mr. Bradway stated that the industry is also experiencing considerable pressure from environmental regulatory agencies which now require all fish hatcheries to obtain discharge permits. This permit ensures that the water used in an inland operation must be cleaned before it is discharged into a river, brook, etc. This has resulted in considerable interest in water systems for these hatcheries, particularly in regard to recycling.

The Adironack North County Association (ANCA), an economic development agency with the goal to spur economic growth in the North Country region of New York, has also

become involved in the aquaculture industry. This agency received $1.9 million in government funds to assist in five economic development areas, one of which is aquaculture. Salmon and trout are the two primary species raised by hatchery operations in North Country, with Hitchen Brook Fish Hatcheries and Aqua Arbon Fish Hatcheries being the two largest players. The majority of fish hatcheries in this area are inland hatcheries utilizing spring, artisan well, and brook water.

Mr. Keith Tieyo, Commercial Officer for ANCA, reports that the number of aquaculture operations in the area has been growing rapidly. Reportedly, there are 20-25 operators who are members of the Association. In 1988, the volume of trout sold by these members was in the order of 216,000 lbs.

In addition to the above production activities in the state, a number of agencies are involved in researching new applications and technologies for the aquaculture industry. The following organizations are doing research in these areas:

- Cornell University, Department of Natural Resources;
- State University of New York Stoneybrook;
- Marine Sciences, State University of New York Stoneybrook;
- New York State Veterinary College, Cornell University;
- Sea Grant College Program, Cornell University;
- State University of New York Buckport, Biological Science; and
- Suffolk County Co-op Extension Sea Grant.

4.2.3 Massachusetts

In Massachusetts, there are 130 shellfish leases and roughly 40 players involved in finfish aquaculture. According to Mr. Karl Rask of the Massachusetts Aquaculture Association, there are roughly 20 operational trout and bait fish hatcheries and 20 operations which grow and sell fish to market. However, most of the industry is comprised of mussel and hard clam operators. Mr. Rask states that the number of players has been increasing every

year with 40-50 new members joining in 1989, most of which were shellfish operators. While a number of players are involved in the finfish aquaculture in the state, Mr. Rask reports that Massachusetts' finfish industry is very small relative to that of New York, with many of the operations being one or two person companies.

Mr. Lou Hambly, a representative of the Massachusetts Department of Fish and Game, states that there are only a handful of private trout hatcheries and five publicly-owned hatcheries that are significant in terms of size. There are no pen operations which he is aware of. Most systems are based on the flow of ground or well water; operations in the state have both tank and concrete raceway systems.

In contrast to the inland hatchery situation, salt water aquaculture has been very active recently, with grants amounting to roughly 800 acres outstanding. Of the companies involved in this industry, there are reportedly four major commercial operations, the largest of which is Taylor Industries, accounting for 300 acres. The remaining players are generally small, one-person facilities.

The salt water aquaculture industry in Massachusetts has been experiencing some difficulty with a number of closures occurring in the last couple of years. There is now a reluctance by government departments to grant additional areas to aquaculture operations at the same time as it restricts resident fishermen in some areas from increasing their yearly commercial landings.

4.2.4 Rhode Island

In speaking with Dr. Jim Anderson, at the University of Rhode Island, he indicated that there may be a market for consulting services directed at solving problems faced by U.S. aquaculture industry people today. These problems relate to finances, site selection, pollution monitoring, complying with regulations such as performing environmental impact assessments, and disease controls. He believes Canadian experts in solving these problems would have a good chance of securing consulting work in the U.S.

More specifically, Mr. Anderson believed the New England area has experienced a number of technical problems which include icing on cages, dealing with seals and other predators, the effects of "super cold" waters, and poor quality, non-durable and falling of nets. The solutions to these technical problems would also assist Canadian suppliers to the U.S. aquaculture industry states Mr. Anderson.

4.2.5 Vermont

In Vermont, there are three federally-owned fish hatcheries, four state-owned fish hatcheries, and five private hatcheries. According to Raymond Barbush, owner/operator of Kitsford National Fish Hatchery, although the private operations are still relatively small, the number of players has been growing annually. Most of the aquaculture activity centres around brook and rainbow trout. A company owned by Mr. John Hardy, Plainfield, and Waterland Corporation, Montgomery Centre, are two hatcheries operating in the state.

4.2.6 New Hampshire

The aquaculture industry in New Hampshire is relatively small. Nashua Hatcheries, Nashua, and Hy-on-a-Hill Trout Hatchery, Plainsfield, are two operations located in the state.

4.3 Competitive Analysis

A listing of the types of equipment sold to the aquaculture industry and the names and locations of companies competing for this market are presented in an appendix to this report.

4.4 Suggested Strategies

The specific market entry strategy to follow will vary greatly by product. However, the following general comments can be made.

- New York and Maine are the largest geographical market areas for targeting P.E.I. aquaculture-related equipment and services.

- In response to the rapid growth in the U.S. finfish and shellfish aquaculture industry, there has been an increase in the number of aquaculture equipment suppliers entering the market. If they have not done so recently, P.E.I. companies should re-acquaint themselves with the product, pricing and promotion strategies of these new market entrants.

Should P.E.I. companies decide to enter the Northeast U.S. market, promotion methods suggested include: advertising in trade magazines, direct mail to potential customers, establishing alliances with U.S. aquaculture industry suppliers and working with U.S. industry association officials and government representatives.

Appropriate trade magazines to consider either advertising in or submitting articles to include:

- Aquaculture Magazine, Asheville, NC, U.S.A.
- Aquaculture Digest, San Diego, CA, U.S.A.
- Atlantic Aquaculture, Montague, PEI, Canada
- Canadian Aquaculture, Victoria, BC, Canada
- Maine Aquaculture Association News, Damoriscotta, ME, U.S.A.
- Rhode Island Aquaculture Association Newsletter, Kingston, RI, U.S.A.
- The Canadian Fish Farmer and Aquaculturist's News, Ridgetown, ON, Canada
- The North American Directory of Aquaculture, Vancouver, BC, Canada

- The World Aquaculture Society Newsletter, Baton Rouge, LA, U.S.A.

Direct mailing lists should be obtained from industry associations, including:

- Finger Lakes Assoc., New York
- Maine Aquaculture Association, Maine
- Adirondock North Country Association, New York
- New York State Aquaculture Association, New York
- Rhode Island Aquaculture Association, Rhode Island

In the case of aquaculture consulting services, strategic alliances should be formed with consulting companies located in the Northeast U.S. which offer complementary services. For example, the following companies in New York offer aquaculture consultancy:

- AFI Environmental
- Aquatic Management Services
- Cold Springs Harbor Hatchery
- Casper Environmental Services
- Geo Marine Resources Inc.

In contrast to the large number of potential customers to be marketed to in the Northeast U.S., the number of government representatives and association officials *who are in a position to influence the decisions of these potential customers* is relatively small. Furthermore, these people often are aware of companies that are either at the start-up stage of their operations, those considering entering the field, and companies which are experiencing technical difficulties. These are critical times when equipment and consulting service decisions are often made. For these reasons, potential P.E.I. companies should make every effort to work with these purchase "influencers", trading contact names, providing free advice on occasion, and ensuring these officials are well aware of P.E.I.'s capabilities. When leads are generated from government or association staff, they should

be following up on as quickly and professionally as possible, to help ensure that such leads will continue in the future. A partial list of contact names is provided in Appendix 3.

5.0 NEXT STEPS

The information contained in this report is intended to provide a *preliminary* market assessment and strategy only; would-be exporters should conduct more analysis before going further. The following steps are recommended:

- Review Company Operations;
- Explore Export Assistance Programs;
- Conduct Detailed Market Research;
- Develop Company-Specific Export Marketing Strategy; and
- Implement the Strategy.

5.1 Review Company Operations

Prior to making any decision to export, the company should conduct a thorough review of its domestic performance and capabilities. For example, sales, profit margins and prices should be compared with those of the industry. If domestic performance is suffering, then perhaps the company's efforts would be better spent making improvements there, prior to venturing into new markets.

Another aspect to thoroughly investigate is the company's resources. Exporting requires considerable time and financial resources, especially in the early stages. The company should determine whether it has a production capacity to ensure that orders can be delivered promptly to both Canadian and U.S. customers. Reliability is one of the most essential requirements for a success in exporting. Therefore, it is not wise to export simply to periodically unload excess inventory.

It is important to ensure that all senior managers of the company be committed to exporting before embarking on such an exercise. Exporting often requires a considerable investment of company resources for a long period before any profits are seen.

The export strategy should form part of the overall company strategy. The company should be clear about its expectations from exporting as well as fully aware of its own limitations. For example, if the company is not prepared to increase production to respond to international demand, then it should not be considering the export market.

5.2 Explore Export Assistance Programs

Assuming the company has the management time, financial resources, capacity and commitment to export, the next step is to explore export assistance programs which are available to assist P.E.I. companies enter export markets.

A number of federal and provincial government programs are available to assist with export market research, make product modifications, provide export advice, assist with financing, contribute to the costs of export advertising and promotion, and help pay for the cost of developing an export marketing strategy. A summary of the assistance programs available to P.E.I. companies is available in Appendix 1.

5.3 Conduct Market Research

Once the programs available to conduct such research have been reviewed, the company should begin to collect U.S. market information additional to that which is presented in this report. There are a number of general sources of U.S. market information available to P.E.I. companies. Some of these sources are presented in Appendix 2.

Appendix 3 presents a list of organizations, contact names and telephone numbers for relevant contacts in the Northeast U.S..

5.4 Develop an Export Marketing Strategy

Once sufficient market research has been carried out, the company should prepare a written export marketing strategy. This need not be lengthy; point form strategies are often more useful than long, windy documents. Committing the strategy to paper helps ensure that few things are overlooked, and allows for a periodic review of performance. The following elements of a typical Export Marketing Plan appear in the publication *Export Guide - A Practical Approach* written for External Affairs Canada by the Canadian Exporters' Association:

- **Management Survey**

- **Analysis of Target Market(s)**
  - buyer
  - competition
  - channels
  - technology
  - government

- **Review of Company and Product**
  - past performance
  - resources - financial, production and human
  - organization structure - incentives, authority, responsibility
  - domestic marketing program: product, price, promotion, distribution

- **Problems and Opportunities in Target Markets**
  - strategies for each of these, for example, a company may be more successful in penetrating a market on a joint venture, licensing agreement or equity investment

- **Export Market Program**
  - product strategy
  - price
  - promotion
  - distribution
  - research

- **Financial Implications of Exporting**
  - projected revenues
  - projected expenses
  - financing needs
  - sources of financing

- **Program Implementation**
  - who will do what, when, where
  - staff recruiting, training, controlling and compensating

- **Program Evaluation**
  - information flow for ongoing feedback

- **Contingency Plans**

5.5 Implement the Strategy

The next step in the export process is to implement the marketing strategy. Appendix 4 contains practical information concerning finding U.S. export partners, and the organizational factors to be considered -- two important elements in the implementation process.

SOURCES OF SPECIFIC MARKET INFORMATION

ABANDONED FARM, INC.
P.O. Box 551
Damariscotta, ME 04543
Tel: (207) 563-3935
Contact: Edward Myers
Processor of: **Mussels:** Live, Farmed, Rope Grown

DODGE COVE MARINE FARM, INC.
P.O. Box 211
Newcastle, ME 04553
Tel: (207) 563-8168 Telex: 955318 INTL DIV
Fax: (207) 563-5732
Contact: Richard D. Clime, ATTN: Dodge Cove
Dealer of: **Oysters:** Live, Fresh Shucked, Farmed

EAST COAST FISH FARMS
Box 231 Leighton Point Road
Pembroke, ME 04666
Tel: (207) 726-3997
Dealer of: **Salmon:** Whole, Fresh Fillets

GREAT EASTERN MUSSEL FARMS
P.O. Box 141
Tenants Harbor, ME 04860
Tel: (207) 372-6317
Fax: (207) 372-8256
Contact: Jim Chalfant or Terry Callery
Dealer of: **Mussels:** Smoked
Ocean Quahogs
Oysters: Live, Different Types
Shrimp: (Headed): Raw
Salmon: Whole
Processor of: **Mussels:** Live, Farmed, Rope Grown, Shucked, Oven-ready, Vinegarette, Salads, Many other

MAINE MARICULTURE
HCR 64 Box 817A Rt. 129
So. Bristol, ME 04568
Tel: (207) 644-8427
Contact: Bea, Barb or Ken

OCEAN PRODUCTS, INC.
Estes Head
Eastport, ME 04631
Tel: (207) 853-6081
Processor of: **Atlantic Salmon:** Fresh Fillets

RIER BROS. SALMON COMPANY
P.O. Box 340
Lubec, ME 04652
Tel: (207) 733-4477
Fax: (207) 733-2361
Contact: Frank Rier
Processor of: **Salmon:** Whole, Fresh Fillets, Smoked Fillets

SEA FARM LUBEC, INC.
P.O. Box 279, Pumping Station
Lubec, ME 04652
Tel: (207) 773-2458
Fax: (207) 773-2099
Contact: Dan Marshall
Processor of: **Salmon:** Whole

SKYBIRD UNLIMITED/STENCE, HENRY
RFD #2, Box 272
Lubec, ME 04652
Dealer of: **Clams:** Live, Frozen, Aquaculture
Oysters: Aquacultured/European
Scallops: Fresh
Dulse
Halibut: Whole
Salmon: Whole
Processor of: **Oysters:** Fresh Shucked

SPINNEY CREEK OYSTER CO., INC.
One Howell Lane
Eliot, ME 03903
Tel: (207) 439-2719 or (207) 439-1876
Contact: Tom or Sam Howell
Processor of: **Oysters:** Live
Quahogs

JOHN K. STOTZ
Box 131, Back Shore Road
Round Pond, ME 04564
Tel: (207) 529-5566
Contact: John Stotz
Dealer of: **Mussels:** Live, Farmed
Oysters: Live
Sea Urchins: Harvested by Diver

APPENDIX 1

EXPORT ASSISTANCE PROGRAMS

Prince Edward Island Companies'
Access to Federal and Provincial
Export Development Programs

The programs summarized in this section are intended to provide an outline of some major federal and provincial programs related to marketing and export to the United Sates.

FEDERAL PROGRAMS

A. ATLANTIC CANADA OPPORTUNITIES AGENCY

ACOA Action Program - designed to focus assistance on the innovative ideas of small and medium sized businesses within eligible sectors. The following assistance is available.

1. **Marketing Development** - designed to encourage small and medium sized business to establish a marketing strategy to maximize revenues through the development and maintenance of domestic and export sales, import replacement and product diversification. Contributions are be available for:

   A The cost of hiring a qualified person for up to three years for the implementation of a marketing plan. The contribution would be up to 75% during the first year, 50% during the second year and 25% during the third year, for the cost of hiring an incremental qualified person(s) to implement an acceptable and approved marketing plan.

   B The direct costs of developing new packaging, promotional materials, advertising, product or equipment demonstrations and participation at trade shows. Contributions can be up to 50% of direct costs associated with packaging and labelling, promotional material, advertising, products or equipment demonstrations and trade shows, fairs and exhibits.

2. **Innovation Assistance** - financial support to advance the level of technology in use in the region, improve productivity or develop new or improved products.

3. **Capital Investment Assistance** - support for new facility establishment depending on evaluation of viability and economic benefit and for expansion or modernization of existing facilities.

4. **Business Studies** - assistance in the costs of engaging qualified consultants involved in investigating ideas and in improving the quality of management.

5. **Business Support** - assistance in the costs of non-commercial projects that provide a proven service to small- and medium sized businesses such as training and technology transfer.

6. **Supplier Development Service** - assist companies to compete more easily for government purchasing contracts for goods and services.

CONTACT - ACOA Regional Office, 3rd Floor, 75 Fitzroy Street, Charlottetown, P.E.I., C1A 5A6 (800 565 0228)

B. DEPARTMENT OF EXTERNAL AFFAIRS

1. Program for Export Market Development (PEMD)

DESCRIPTION - PEMD is the primary trade related program in the Department of External Affairs, the objective of which is to increase the sales of Canadian goods and services. This is achieved through cost sharing activities and involves both industry initiated activities and government planned activities.

The following industry initiated export marketing activities are eligible:

- participation at recognized trade fairs outside Canada
- visits outside Canada to identify markets and visits of foreign buyers
- project bidding or proposal preparation for specific projects involving international competition and formal bidding procedures
- the establishment of export consortia for companies
- the establishment of permanent sales offices abroad
- special activities for non-profit food, agriculture, and fish organizations, marketing boards and agencies
- marketing agreements with the department to undertake a concentrated marketing program

Government-initiated activities include:

- sharing the cost of a company's participation at trade exhibits outside Canada
- sponsoring outgoing missions of Canadian business people to identify market opportunities abroad
- hosting incoming missions to Canada of foreign business and government officials who can influence export sales

ELIGIBILITY - Applicants must be an incorporated business, an independent firm of professionals, a non-sales association, marketing agency or board, or a national private sector, non-profit trade organization.

CONTACT - International Trade Centre, 134 Kent Street, Charlottetown, P.E.I., C1A 7M8 (902 566-7443)

2. New Exporters to Border States (NEBS)

DESCRIPTION - NEBS is a joint activity involving External Affairs, International Trade Canada, regional International Trade Centres and provincial trade departments. The program is targeted at non-exporters and is essentially a crash course on essential elements for exporting to border states. Participants of the NEBS program are taken to the nearest Canadian Trade Commissioner's office across the U.S. border and over a two-day people period, are ushered through all phases of exporting from customs clearance procedures to warehousing and distribution of goods.

ELIGIBILITY - Applicants must be any Canadian business not presently exporting its commodities to the U.S. on a regular basis.

CONTACT - International Trade Centre, 134 Kent Street, Charlottetown, P.E.I., C1A 7M8 (902 566-7443)

3. New Exporters to the U.S. South (NEXUS)

DESCRIPTION - NEXUS is intended to introduce businesses that are presently selling to border U.S. States to new regional markets in the U.S. and particularly the south eastern and western States. The objective is to get exporters to visit other areas of the U.S. to uncover new opportunities and to improve overall market hare. The focus is on outlining the sectoral market characteristics and on developing a program to gain distribution and sales exposure for the companies.

ELIGIBILITY - Companies will qualify for participation in a NEXUS mission if they have demonstrated a sustained and successful marketing effort to the northern states.

CONTACT - International Trade Centre, 134 Kent Street, Charlottetown, P.E.I., C1A 7M8 (902 566-7443)

4. Other Programs

Info Export - provides information on the government's export programs and refers business people to the appropriate sources of assistance.

CONTACT - toll free at 1 800 267-8376

Commercial Trade Representation Abroad - provides a worldwide network of trade experts whose primary responsibility is to assist Canadian exporters to get started or to expand sales in foreign markets.

Cost Recoverable Technical Assistance Program - aims to improve Canada's performance in marketing Canadian goods and services abroad through the use of Canadian government experts on a cost-recoverable basis.

Geographic Branches - main function is to develop export markets for Canadian goods and services.

International Trade Centres - provide advice on export markets opportunities and refers business people.

International Trade Data Bank - information bank which track and list the export and import flow data from trading nations.

WIN Exports - a computerized information system which matches Canadian exporters to market opportunities around the world.

World Market Trade Development Program - designed to improve Canadian access to world markets.

C. AGRICULTURE CANADA

1. Canadian Agri-food Development Initiative (CAFDI)

DESCRIPTION - CAFDI aims to encourage economic development in the Canadian agricultural and food products industries by providing financial assistance for projects in market development, production development and human resource development.

ELIGIBILITY - Applicants must be commercial and non-profit organizations, including corporations, cooperatives, marketing boards, partnerships, sole proprietorships, universities, industry associations, provincial and territorial governments, crown corporations and government agencies.

CONTACT - Agriculture Development Branch, 141 Kent Street, 2nd Floor, Charlottetown, C1A 8C5 (902 566-7316)

D. EXPORT DEVELOPMENT CORPORATION (EDC)

The EDC is Canada's official export credit agency responsible for providing export credit insurance, loans, guarantees and other financial services for the export community. Specific programs include:

EDC Insurance Program

Export Financing and Guarantee Programs

U.S.A. Commercial Risk (Small Business) Insurance

CONTACT - Atlantic Regional Office, Toronto-Dominion Bank Building, Suite 1003, 1791 Barrington Street, Halifax, Nova Scotia, B3J 3L1 (902 423-0881)

E. INDUSTRY, SCIENCE AND TECHNOLOGY CANADA (ISTC)

Business Opportunities Sourcing System (BOSS) - is a computerized data bank which contains information on Canadian manufacturing and service companies.

CONTACT - International Trade Centre, 134 Kent Street, Charlottetown, P.E.I., C1A 7M8 (902 566-7443)

F. FEDERAL BUSINESS DEVELOPMENT BANK

Counselling Assistance to Small Enterprises (CASE) - provides counselling assistance in all areas of business management including accounting, marketing, production and personnel.

CONTACT - FBDB, Charlottetown Branch, 180 Kent, Charlottetown, P.E.I. (902 566-7454)

Export Receivable Financing Program - provides small and medium-sized businesses with a means to obtain an adequate level of financing for their foreign based receivables.

CONTACT - FBDB, Charlottetown Branch, 180 Kent, Charlottetown, P.E.I. (902 566-7460)

PROVINCIAL PROGRAMS

A. PRINCE EDWARD ISLAND DEVELOPMENT AGENCY (PEIDA)

Market Promotion - provides assistance to advertise and promote companies and their products in an effort to maximize sales and to participate in product trade shows to develop and maintain contacts in domestic and export markets.

Research and Information - provides assistance for identifying new or increased sales opportunities for Island products in local, national and export markets and obtaining market and technical information required to carry on or expand business.

Market and Product Development - provides assistance to generate and increase the sales of P.E.I. products and to develop new or improved products and processes.

Market Organization - provides assistance to upgrade marketing skills, prepare and implement short and long term marketing plans and form marketing organizations to capitalize on market opportunities.

ELIGIBILITY - Eligible clients for the four programs outlined above must be primary producers, producers' organizations processors or manufacturers established and operating in P.E.I.

CONTACT - PEIDA, West Royalty Industrial Park, Charlottetown, P.E.I., C1E 1B0 (902 368-5800)

APPENDIX 2

SOURCES OF GENERAL MARKET INFORMATION

SOURCES OF GENERAL MARKET INFORMATION AND PUBLICATIONS

A) SOURCES

1) International Trade Centre of Industry, Science and Technology Canada
Charlottetown, PEI

2) PEI Department of Industry
Charlottetown, PEI

3) Canadian Trade Commissioner Service
c/o Canadian Consulate
Boston, New York

4) Consulate/Embassy of country of destination in Canada

5) Statistics Canada

6) Export Development Corporation
Atlantic Region Office
Suite 1003, Toronto-Dominion Bank Building
1791 Barrington Street
Halifax, Nova Scotia
Tel: (902) 429-0426 Fax: (902) 423-0881

7) For Agricultural and Food Products
U.S. Foreign Agriculture Service
c/o U.S. Embassy
Ottawa, Ontario
Tel: (613) 238-5335

8) U.S. Customs
Portland, Maine
Tel: (207) 780-3330

9) U.S. Bureau of Census, Boston (via Canadian Consulate in Boston)

10) U.S. Customs Brokers at port of entry in the United States

11) International Business Council of Canada
Canadian Chamber of Commerce
1080 Beaver Hall Hill, Suite 1630
Montreal, Quebec H2Z 1T2
Tel: (514) 866-4334 Fax: (514) 866-7296

12) Atlantic Provinces Transportation Commission
P.O. Box 577
Moncton, New Brunswick E1C 8L9
Tel: (506) 857-2820

B) PUBLICATIONS

1) Directory of the Canadian Trade Commissioner Service
Published by;
Trade Communications-Canada Division (BTC)
Available through;
Info Export (BTCE)
Department of External Affairs
125 Sussex Dr.
Ottawa, Ontario
Tel: (603) 0992-6267

2) So You Want to Export? - Making the Initial Decision
Published by;
Trade Communications-Canada Division (BTC)
External Affairs and International Trade Canada
125 Sussex Dr.
Ottawa, Ontario
Tel: (613) 992-6267

3) Canadian Agricultural Exporter's Handbook
Food Development Division
Agriculture Development Branch
Agriculture Canada
Ottawa, Ontario

For advice on all aspects of agricultural exports, this is an excellent, thorough publication

4) Directory of United States Customs Brokers
Published by;
Trade Communications-Canada Division (BTC)
External Affairs and International Trade Canada
125 Sussex Dr.
Ottawa, Ontario
Tel: (613) 992-6267

5) Export Techniques
Published by;
J.R. Arnold
6122 Depot 1
Victoria, British Columbia
V8P 5L4

APPENDIX 3

SOURCES OF SPECIFIC MARKET INFORMATION

PUBLICATIONS

Aquaculture Resource Agency Directory, Prince Edward Island.

The North American Directory of Aqua Culture, 1988-89 Edition

Maine Directory of Wholesale Seafood Dealers and/or Processors, 1989-1990, Maine Department of Marine Resources

World Aquaculture, Volume 20(4), December 1989

Canadian Aquaculture, Jan/Feb, 1990

Canadian Aquaculture, March/April, 1990

SOURCES FOR ADDITIONAL MARKET INFORMATION

Dick Kline, Past President, Maine Aquaculture Association (207) 563-8168

Carol Yager, Executive Secretary, Maine Aquaculture Association (207) 563-1743

Cathy Crory, Cobsequite Fin Fish Growers Association, Maine, (207) 563-6088

Keith Tieyo, Adiromack North Country Association, New York, (518) 523-9820

Phil Bradway, New York Department of Fish and Wildlife, (518) 457-2840

Raymond Burbush, Manager, Pittsford Fish Hatchery, Vermont, (802) 483-6618

Frank Germano, Massachusetts Department of Marine Fisheries, Mass., (508) 888-1155

Lou Humbly, Massachusetts Department of Fish and Wildlife, Mass., (508) 759-3406

Karl Rask, Massachusetts Aquaculture Association, Mass., (508) 362-2511

Ellis Jagoe, Fiander-Good Consultants, New Brunswick, (506) 458-8455

Dr. Jim Anderson, University of Rhode Island, Rhode Island

David Egan, Aquaculture Consultant, The DPA Group, Vancouver, British Columbia

David Witaker, Department of Marine Fisheries, Mass., (508) 888-1155

April Valliere, Department of Fish and Wildlife, Rhode Island, (401) 783-7797

Ralph Bourjean, Department of Fish and Wildlife, Rhode Island, (401) 783-7797

Randy Neill, Manager, New England Mussel Growers Inc., Rhode Island, (401) 245-6888

Tom Drum, Department of Marine Resources, New York, (516) 751-7900

Steve Hendrikson, Department of Marine Resources, New York, (516) 751-7900

Phillip Averyll, Director of Fisheries Technology Division, Maine, (207) 529-5349

Producer

AFI Environmental
8103 Robinson Rd., Lockport NY, USA 14094
Phone: (716) 625-8434
Bass,
Trout

Adirondack Hatchery
Mr. Glenn Corl
Manager
Star Route 113, Box 1, Saranac Lake NY, USA 12983
Phone: (518) 891-3358
Hatchery (Unspecified)

Adirondack Fisheries, Inc.
Mr. Bill Ruppel
P.O. Box 111, Eldred NY, USA 12732
Phone: (914) 557-8316
Hatchery (Unspecified)

Mr. James Anderson
Hillside Rd., Bliss NY, USA 14024
Phone: (716) 322-7567
Hatchery (Unspecified)

Wm. T. Anderson
R.D. 1, Bolivar NY, USA 14715
Phone: (716) 928-1233

Hatchery (Unspecify)

Applied Systems & Technologies, Inc.
Mr. George Bittner
RR 1, Box 227, Cleveland NY, USA
Phone: (315) 432-2852
Shiners (Golden)

Mr. Robert W. Avery
Arieta, Canoga Lake NY, USA 12032
Hatchery (Unspecify)

Bath Hatchery
Mr. George Walke
Manager
RD # 2, Bath NY, USA 14810
Phone: (607) 776-7087
Hatchery (Unspecify)

Beaverhill Trout Hatchery
Mr. Fred D. Shaver
Turnwood Rd., Low Beach NY, USA 12753
Phone: (914) 439-4947
Hatchery (Unspecify)

Black River Trout Ranch, Kerry Inc.
Mr. Leroy Hodges
Box 317, Hamilton NY, USA 13346
Trout Hatchery

Blue Points, Inc.
Mr. Craig Strong
Box 8, West Sayville NY, USA 11796
Phone: (516) 589-0123
Shellfish

Bluepoints Co.
Mr. Emil Usinger
Box 8, West Sayville NY, USA 11796
Phone: (516) 589-0123
Shellfish

Brandon Enterprises
, Mr. Lee Deming
Manager
Rural Box 69, Paul Smiths NY, USA 12970
Phone: (518) 327-3534
Fish Eggs,
Trout

Mr. Joseph Bragg
3 River St., Norwood NY, USA 13668
Phone: (315) 353-9682
Perch,
Pike (Walleye)

Brown's Trout Hatchery
Mr. Gerald Brown
Route 362, Bliss NY, USA 14024
Phone: (716) 322-7322
Trout Hatchery

Cahill Fisheries Inc.
One West Seneca Street, Oswego NY, USA 13126
Phone: (315) 343-3230
Not Specified

Caledonia Hatchery
D. Longacre
Manager
, Caledonia NY, USA 14423
Phone: (716) 538-6306
Hatchery (Unspecify)

Carpenter's Brook Fish Hatchery
Mr. Walter Zafis
Route 321, Elbridge NY, USA 13060
Phone: (315) 636-1788
Not Specified

Castle Creek Trout Farm
Rd 2 Box 503, Bath NY, USA 14810
Trout

Catskill Hatchery
C. Fornaro
Manager
, Livingston Manor NY, USA 12758
Phone: (914) 439-4328
Hatchery (Unspecify)

Chateaugay Hatchery
C. Coulman
Manager
, Chateaugay NY, USA 12920
Phone: (518) 497-6151
Hatchery (Unspecify)

Coastal Aquaculture, Inc.
Mr. William Swan
P.O. Box 687, Quogue NY, USA 11959
Phone: (516) 728-1300
Shellfish

Coastal Farms, Inc.
Mr. Wallace Steele
P.O. Box 480, Middle Lane Highway, Watermill NY, USA 11978
Phone: (516) 283-3154
Shellfish

Cold Spring Harbor Fish Hatchery
Mr. Norman Sooie
P.O. Box 535, Cold Spring Harbor NY, USA 11724
Phone: (516) 692-6768
Trout Hatchery

Crystal Spring Trout Farm Inc.
P.O. Box 345 - Spring Valley Rd., Delhi NY, USA 13753
Phone: (607) 746-2836
Trout (Rainbow)

Mr. James A. Deming
RD # 1, Oneonta NY, USA 13820
Phone: (607) 432-8449
Bait

Devil's Elbow Hatcheries
L.A. Riddle
Owner
Box 117, Forestport NY, USA 13338
Hatchery (Unspecify)

EA Science & Technology
Mr. Bruce Freeman
RD 2, Goshen Turnpike, Middletown NY, USA 10940
Phone: (914) 692-6706
Bass (Striped)

Empire Fisheries
Mr. Jerry Brown
Box 68, Bliss NY, USA 14024
Phone: (716) 322-7777
Bait,
Pike (Walleye)

Mr. George Esker
4435 Lating Rd., Canadaigua NY, USA 14424
Phone: (716) 394-2730
Bait

F.M. Flowers Oyster Co.
Mr. David Reiyea
, Bayville NY, USA 11709
Phone: (516) 628-2077
Shellfish

Farewood Limes, Inc.
Dr. Thomas Field
RD 1, Gansevoort NY, USA 12831
Phone: (518) 793-1262
Salmon,
Trout

Mr. Robert C. Fryl
2412 Sands Road, Camillus NY, USA 13031
Phone: (315) 672-8691
Trout Hatchery

Finch Pruyn & Co. Inc.
1 Glen St., Glens Falls NY, USA 12801
Phone: (518) 793-2541
Hatchery (Unspecify)

Finger Lakes Aquaculture
Mr. Douglas Mako
P.O. Box 384, Spencer NY, USA 14883
Phone: (607) 589-4648
Shellfish

Fish Delight, Inc.
Dr. V. Tsai
P.O. Box 858, Wurtsboro NY, USA 12790
Phone: (914) 888-5401
Finfish

Fisherman's Paradise
Mr. John Dunster
, Camden NY, USA 13316
Phone: (315) 245-0381
Hatchery (Unspecify)

Fortville-Lake George Hatchery
Mr. John Kanas
P.O. Box 255, Gansevoort NY, USA 12831
Phone: (518) 793-7095
Salmon,
Trout

George's Bait farm
Mr. George Garbarous
1980 Eastwood Rd., East Aurora NY, USA 14052
Phone: (716) 652-5129
Bait,
Finfish

Grace Farms
Mr. John Fowler
Gunner Rd., Central Square NY, USA 13036
Phone: (315) 668-3318
Bait

Mr. John S. Grimm
Kerr Rd., RD # 1, Rhinebeck NY, USA 12572
Phone: (914) 876-3983
Hatchery (Unspecify)

Hemlock Springs Trout Hatchery
Mr. C. Scott Elliot

P.O. Box 243 County Line Rd., Yorkshire NY, USA 14173
Phone: (716) 492-4323
Trout Hatchery

Hickling Fish Farm
Mr. Vincent Hickling
RD Box 201A1, Edmeston NY, USA 13335
Phone: (607) 965-8488
Finfish

Hinchinbrooke Hatchery
Mr. Garth Stephen
RFD # 1, Chateaugay NY, USA 12920
Phone: (518) 497-6505
Salmon,
Trout

Homarus, Inc.
Ms. Karen Heinemeyer
78 Kiaia Avenue, Mt. Kisco NY, USA 10549
Phone: 914-666-8962
Salmon (Atlantic),
Sea Bass

Mr. Jacob C. Hoffer
5156 Highbridge St., Fayetteville NY, USA 13066
Phone: (315) 637-6311
Hatchery (Unspecific)

Ms. Mary S. Krueger
RD #1, Thomas Rd., Port Leyden NY, USA 13433
Hatchery (Unspecific)

Lets Go Fishing
Mr. Bruce LeClaire
P.O. Box 543, Chazy NY, USA 12921
Phone: (518) 846-7661
Trout (Rainbow)

Long Island Oysters Farms Inc.
Eaton's Neck Road, Northport, Long Island NY, USA 11768
Phone: (516) 754-1600
Oysters

Mac's Bait
Mr. Daryl MacNeil
6215 Heinz Rd., Lakeview NY, USA 14085
Phone: (716) 627-7718
Bait,
Minnows (Fathead),
Shiners

Martin Fishers
RD 7, Box 388, Fulton NY, USA 13069
Carp

Mr. Edwin L. Mattiers
3010 W. State, Olean NY, USA 14760
Hatchery (Unspecific)

Ms. Rhona Metal
2010 Ray Roberts Rd., RD 1, Watkins Glen NY, USA 14391
Hatchery (Unspecific)

Morehouse Bait Co.
3435 Seybolt Rd., Seneca Falls NY, USA 13148
Phone: (315) 568-8520
Bait

Multi Aquaculture Systems
Dr. Robert J. Valenti
Cranberry Hole Rd., Box 679, Amagansett NY, USA 11930
Phone: (516) 267-3341
Bass (Striped)

Mr. Richard G. Muss
RD 1, Case Hill Rd., Candor NY, USA 13743
Phone: (607) 751-4496
Bait

Naylor Hatchery
Mr. John Naylor
Shepherds Rd., Cazenovia NY, USA 13035
Phone: (315) 655-3144
Trout

North East Biologics
Mr. John Grimm
1 Kerr Rd., Rhinebeck NY, USA 12772
Phone: (914) 876-4766
Trout

OURS-Delos Assoc.
Mr. Andrew Van Benschoten
72 Main St., Delhi NY, USA 13753
Phone: (607) 746-8362
Hatchery (Unspecific)

Ossan Pond Corporation
Mr. George C. Matthiessen
, Fishers Island NY, USA 06390
Phone: (516) 788-7201
Oyster Seed Producer

Mr. Stanley Offaick
Sand Creek Rd., Hancock NY, USA 13783
Phone: (617) 637-2261
Hatchery (Unspecific)

Oneida Hatchery
H. Youmans
Manager
, Constantia NY, USA 13044
Phone: (315) 623-7311
Hatchery (Unspecific)

Onondaga Springs Trout Hatchery
Mr. Robert Fleischer
RD 1, Onondaga NY, USA 13820
Phone: (607) 432-0761
Trout Hatchery

Peter Aleba
Mr. Peter Aleba
RR 1, Box 108-B, Whitney Point NY, USA 13862
Phone: (607) 692-4362
Bass,
Trout

R & R Fish Farms
Route 1, Watkins Glen NY, USA 14891
Phone: (607) 535-4662
Bass (Largemouth)

Randolph Hatchery
G. Sickles
Manager
, Randolph NY, USA 14772
Phone: (716) 358-4758
Hatchery (Unspecific)

Rome Fish Disease Control Center
J. Schachte
8214 Fish Hatchery Rd., Rome NY, USA 13440
Phone: (315) 337-0919
Hatchery (Unspecific)

Rome Hatchery
J. Brand
Manager
MR # 3, Rome NY, USA 13440
Phone: (315) 337-1390
Hatchery (Unspecific)

Mr. Henry Rothrom
, Annandale NY, USA 12503
Phone: (518) 329-0173
Hatchery (Unspecific)

Salmon River Hatchery
P. Maynard
Manager
RD # 1, Altmar NY, USA 13302
Phone: (315) 298-5051
Hatchery (Unspecific)

Mr. Stephen Sanford
East Port Ray Rd., Wolcott NY, USA 14518
Phone: (315) 594-8825
Bait

Sea Farm Inc.
Mr. James R. Ryan
Circle Line Plaza, West End 2nd St., New York NY, USA 10038
Phone: (212) 563-3204
Oysters,
Salmon (Atlantic),
Salmon (Chinook),
Salmon (Coho)

South Otselic Hatchery
D. Smith
Manager
, South Otselic NY, USA 13155
Phone: (315) 653-7727
Hatchery (Unspecific)

Stony Creek Hill
Mr. Chester S. Manzinec
Star Route, Northville NY, USA 12134
Hatchery (Unspecific)

Mr. William J. Strong
415 West Hickory St., East Rochester NY, USA 14445
Phone: (716) 422-2950
Bait,
Perch,
Pike (Walleye)

Sun Trout Farms, Inc.
RR 2, Box 742, Katherskson NY, USA 12448
Phone: (914) 626-0141
Trout

Sweet Water Prawn, Ltd.
617 W 27th Street, New York City NY, USA 10001
Phone: (212) 564-8844
Prawns

The Clam Farm Inc.
Mr. Steve Malinowski
Box 402, Fishers Island NY, USA 06390
Phone: (516) 788-7589
Clams

Town of Islip
Mr. Martin Byrnes
475 Oak St., Central Islip NY, USA 11722
Phone: (516) 224-5648
Shellfish

Mr. Joe A. Travers
3611 Hansen Rd., Jamesville NY, USA 13078
Hatchery (Unspecified)

Van Hornesville Hatchery
L. Peterplace
Manager
, Van Hornesville NY, USA 13475
Phone: (315) 858-0837
Hatchery (Unspecified)

Mr. Aaron E. VandeBogart
P.O. Box 121, Seaville NY, USA 12409
Hatchery (Unspecified)

Whispering Pine Tree Farm
Mr. Wallace Brown
RD # 1, Stillwater NY, USA 12170
Phone: (518) 584-4218
Trout Hatchery

Wild Trout Run Hatchery
Mr. Tyrone K. Woodward
RD # 3, Gulick Rd., Naples NY, USA 14512
Phone: (716) 374-2168
Trout Hatchery

Wittenberg Trout Farm
Box 250 Wittenberg Rd., Seaville NY, USA 12409
Phone: (914) 679-5344
Trout

Worlds My Oyster
Mr. Angelo J. Pessolt
Bridge St., Shelter Is. Heights NY, USA 11965
Phone: (516) 749-2045
Shellfish

Worm Warehouse
P.O. Box 82, Malone NY, USA 12953
Phone: (518) 483-7687
Worms

APPENDIX 4

IMPLEMENTING THE STRATEGY

IMPLEMENTING THE STRATEGY[1]

Finding a Partner

Whether a Canadian firm chooses to export using manufacturers' representatives or distributors, or whether it has decided that a licensing agreement or joint venture is a more appropriate strategy, it is necessary to locate business partners in the United States.

There are a variety of sources of assistance available to Canadian firms seeking U.S. business partners. The best place to start is with the Canadian consulate located in the target U.S. market area. Consulates' trade commissioners keep detailed records of manufacturers' representatives, distributors and agents operating in their market areas and will provide them to Canadian firms.

Before visiting the consulate, a letter should be sent outlining the purpose of the visit, and information requirements. Manufacturers should arrive at the consulate equipped with a business plan clearly defining goals, objectives and criteria for selection of a business partner.

Consulates may also be able to assist with the identification of suitable licensing or joint venturing partners. Additionally, local accounting firms, consultants, lawyers, large local banks and business may be of assistance.

Trade shows are also an excellent means of contacting business associates, especially manufacturers' representatives and distributors. They are also a good means of assessing the competition. Manufacturers should plan to attend key trade shows prior to implementing a U.S. market penetration strategy.

A listing of most regional and national trade shows in the United States is available through contacting Co-Mar Management Services Inc., 366 Adelaide Street East, Suite 339, Toronto, Ontario, M5A 3X9; telephone (416) 364-5352. The directory, called "Directory of International Trade Fairs" may also be available at your local library, or through the B.C. Info Business Centre at 750 Pacific Blvd. South, Vancouver, B.C.

Manufacturers' representatives may be located through contacting MANA, or the Manufacturers' Agents National Association in Laguna Hills, California. This organization publishes a directory of agents organized by product specialty and territory, as well as publishing a monthly trade magazine.

Trade journals and magazines relevant to a particular industry may also be useful in locating business partners.

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[1] Sourced from: Alternative Methods of Penetrating the U.S. Market. Peat Marwick International Trade Group, January, 1989.

All manufacturers planning to penetrate the U.S. market should visit the market area and conduct as much market research as possible, or engage a consultant to do the same. Discussions should be held with important buyers and with as many distribution channel members as possible. This process will help the Canadian firm to identify potential business partners.

Selecting a Partner

Once a number of potential partners have been identified, the selection process begins. There are numerous published checklists of questions to ask prospective manufacturers' agents or distributors. At a minimum, the manufacturer should ask:

- How long the agent/distributor has been in business
- Volume of business transacted annually.
- Size of average order.
- Number of sales personnel and performance of each.
- Commission rate expected.
- Amount of time agents will devote to the Canadian product.
- For a copy of audited financial statements.
- For a listing of other products represented.
- For a customer list.
- For assurances regarding number of sales calls the agent will make in a monthly period.
- Whether the agent is willing to provide market intelligence information and at what price.
- Whether the agent will agree to allow the manufacturer to maintain house accounts, if necessary.
- Whether the agent is prepared to provide after sales support, if necessary.
- Agents's assessment of prospects (sales forecast).
- References.

Drawing Up an Agreement

Manufacturers should seek assistance from legal and accounting professionals when drawing up an agreement with any U.S. business partner. Chances are good that one of these professionals will be able to provide draft copies of standard agreements which will be useful in ensuring that all key areas are covered. Market research activities in the target market may also turn up competitors' agreements.

Organizational Factors to Consider

Canadian manufacturers should be prepared to respond to the needs of their U.S. business partners immediately upon signing a deal. This may require significant work and reorganization at home.

An exporting strategy places demands on all members of the domestic company from marketing personnel, to purchasing, shipping and accounting. Within each affected department, someone must be assigned responsibility for export-related business matters. Without specific assignment of authority and the establishment of clear reporting lines, key decisions will require unreasonable amounts of time and business will likely be lost.

Responsibility for the U.S. business base must also be clearly assigned at senior management levels. Without senior management commitment, no strategy will succeed.

It is important to ensure that all of the details associated with the new foreign market activities have been addressed by the time an agreement is in place. For example, manufacturers who have chosen an exporting strategy will need:

- a ready supply of order forms, quotation forms and other administrative forms;
- procedures in place to replace faulty or otherwise unsatisfactory merchandise in a timely manner;
- a plan for and schedule for sales meetings with U.S. sales reps;
- a financial accounting system in place that can cope with exchange rates, invoicing south of the border and timely remuneration of non-company sales representatives, if applicable;
- arrangements with a banker who will assist in collecting foreign receivables;

- a supply of product literature suitable to the foreign market;
- price lists calculated F.O.B. nearest border crossing, and including agents' commissions, U.S. customs duties, U.S. customs house brokerage charges, insurance and freight;
- product sample;
- merchandising racks, if required;
- advertising and promotional materials; and
- product specifications, if applicable.

APPENDIX 5

NORTH AMERICAN

AQUACULTURE INDUSTRY SUPPLIERS

SOURCE: **The North American Directory of Aquaculture, 1988-1989 Edition**

Equipment

Aeration/Oxygenation

Gene's Repair Shop	Alabama
Harless	Alabama
Harper	Alabama
Livingston Machine Shop	Alabama
Stewart	Alabama
Anderson Bait Distributors	Arkansas
Baltz Industries	Arkansas
Aquatess (Canada) Ltd.	British Columbia
Canadian Liquid Air Ltd.	British Columbia
Point Four Systems, Inc.	British Columbia
Rotair Industries, Ltd.	British Columbia
Sun Valley Trout Farms Ltd.	British Columbia
Union Carbide Canada Ltd.	British Columbia
Valley Oxygen Supplies	British Columbia
Aquaneering	California
Aquaretics Systems Inc.	California
Liquid Air Corporation	California
Rasco Industries	California
Bovee's Inc.	Colorado
VMG Industries Inc.	Colorado
Wiley Weber, Inc.	Colorado
Flygt Corporation	Connecticut
AREA	Florida
Aquatic Eco-Systems Inc.	Florida
Sterling Systems International Inc.	Florida
Air Diffusion Systems	Illinois
Aquaculture Resources Midwest	Illinois
Aquatic Control Inc.	Indiana
Hallock Aquaculture Research Center	Kansas
Micro-Por, Inc.	Kansas
Ray Lindsey Co.	Kansas
Amox Oxygen Generators	Kentucky
M & M Enterprises	Maryland
The Aquarium Inc.	Maryland
The Power House, Inc.	Maryland
Aeration Industries	Minnesota
Aeromix Systems, Inc.	Minnesota
Clean-Flo Laboratories, Inc.	Minnesota
Air-O-Lator Corporation	Missouri
Aquacenter, Inc.	Mississippi
Geddie Machine & Repair Shop	Mississippi
Indianola Metal Co.	Mississippi
Fisheries Equipment Technology Ltd.	Newfoundland
Atlantic Purification Systems	Nova Scotia
Air-Sep Corporation	New York
International Aeration Systems	New York
Union Carbide Corporation	New York
Aquatic Research Co.	Ohio
Canadian Oxygen Ltd.	Ontario
International Aeration Systems	Ontario
P.R.J. Simons Motors	Ontario
S.S. Filtration & Development Co. Ltd.	Ontario
Bareko, Inc.	Pennsylvania
EcoScience	Pennsylvania
Schramm, Inc.	Pennsylvania
Canadian Liquid Air Ltd.	Quebec
Fontaine Pumps & Water Systems	Quebec
Buford Bait Co. Inc.	Tennessee
ATEC Inc.	Texas
Commerce Welding & Manufacturing Company	Texas
Fritz Aquaculture	Texas
Argent Chemical Laboratories Inc.	Washington
Applied Biochemists, Inc.	Wisconsin
Duraframe Dipnet	Wisconsin
Fresh-Flo Corporation	Wisconsin
Liberty Enterprises	Wisconsin
Robinson Wholesale, Inc.	Wisconsin

Agitators

Anderson Bait Distributors	Arkansas
Arkansas Fish & Farm Supply	Arkansas
Aquaneering	California

Inter Home Fish Association	California
Aquatic Control Inc.	Indiana
Haring, Sam	Louisiana
Delta Net & Twine Co.	Mississippi
Aquashade, Inc.	New York
Woehrle's Wholesale Bait	Pennsylvania
Buford Bait Co. Inc.	Tennessee
Memphis Net & Twine	Tennessee
Nylon Net Company	Tennessee
Boatcycle Company	Texas
Commerce Welding & Manufacturing Company	Texas
Robinson Wholesale, Inc.	Wisconsin

Air Cargo Containers

Envirotainer Leasing, Ltd.	California
Insulated Shipping Containers, Inc.	California

Alarms/Monitors

Lobsiger Associates Ltd.	Nova Scotia
William Dowds & Sons	Ontario
Av-Alarm Corporation	Oregon
Phipps Water Alarm Co.	Oregon

Algae Concentrators

Clinton Centrifuge	Pennsylvania

Alternate Energy: Windmills

O' Brock Windmill Distributors	Ohio

Aluminum Boats

Alutech Marine Ltd.	British Columbia
Dolphin Industries Ltd.	British Columbia
Fishboat Trader Ltd.	British Columbia
Kingfisher Boats and Docks	British Columbia
Lifetimer Boats	British Columbia
Outback Marine	Florida
Bridport Brownell Ltd.	Nova Scotia
Navy Island Marine Ltd.	Nova Scotia

Aluminum Cages

Alcan Extrusions Ltd.	British Columbia
Kingfisher Boats and Docks	British Columbia
Scantech Resources Ltd.	British Columbia
Viking Pacific Products Ltd.	British Columbia
Clements Farm Service	Florida
New Dimensions Aquaculture Supply	Manitoba
Aquaculture Advisory Service	North Carolina
Dupont Canada Inc.	Ontario
Topper Floating Structures Ltd.	Ontario

Aluminum Tanks

A&R Tanks Ltd.	British Columbia
Outback Marine	Florida

Aquacultural Greenhouses

U.S. Systems, Inc.	Florida

Aquarium Supplies

R. Johnson Enterprises	California

Bacterial Cleaners

FTN Associates, Ltd.	Arkansas
Creative Sales West	California
Materials Science Company	California
Clements Farm Service	Florida
Medipharm USA	Iowa
Water Quality Science Inc.	Missouri
ATP Corporation	Ohio

Batteries

Frontier Equipment Limited	British Columbia
Polar Battery Vancouver Ltd.	British Columbia
Solacs Micropower Engineering Ltd.	British Columbia

Blast Freezers

Howe Corporation	Illinois
Airco Industrial Gases	New Jersey
Air Products and Chemicals, Inc.	Pennsylvania

Bouys

Clesaco Enterprises Ltd.	British Columbia
Master Marine (Canada) Ltd.	British Columbia
Northwest Plastics Ltd	British Columbia
Ocean Pacific Marine Industries Ltd.	British Columbia
Polar Cirkel A/S	British Columbia
Scantech Resources Ltd.	British Columbia
Topper Floating Structures Ltd.	British Columbia
Viking Pacific Products Ltd.	British Columbia
Wescott Bay Seafarms	Washington

Boxes/Packaging

Domtar Packaging Inc.	British Columbia
Somerville Flexible Packaging	British Columbia
Cryopak Corporation	California
Insulated Shipping Containers, Inc.	California
Southland Packaging, Inc.	California
Packaging Products Corp.	Massachusetts
Robert Reiser & Company, Inc.	Massachusetts
Consea Inc.	New Brunswick
Downeast Plastics Ltd.	New Brunswick
Xactics Ltd.	New Brunswick
Can-Am Containers Ltd.	Nova Scotia
Sound Environmental Inc.	Washington

Broodstock Handling Equipment

Dairy Service, Inc.	Indiana

Cages: General

Clesaco Enterprises Ltd.	British Columbia
Dix Custom Cages	Florida
New Dimensions Aquaculture Supply	Manitoba
Leckie's Marine Equipment	Nova Scotia
Inqua Corporation	New York
Neff, Gregor N.	New York

Cages: Wire

Clements Farm Service	Florida
Culver Fish Farm	Kansas
New Dimensions Aquaculture Supply	Manitoba
Aquaculture Advisory Service	North Carolina
Inqua Corporation	New York
Sherwat Wire Cloth Co., Inc.	New York
Northwest Wire Works Inc.	Washington

Chain

Equipment

Hugh Forsyth Enterprises	British Columbia

Circular Pens

Polar Cirkel A/S	British Columbia
Sea Corral Ltd.	British Columbia
Industrial Plastics, Inc.	Washington

Circular Tanks

Palnor Container	Alberta
A&R Tanks Ltd.	British Columbia
Aquarex Systems Ltd.	British Columbia
Pacific Rim Aqua Supplies Ltd.	British Columbia
Scantech Resources Ltd.	British Columbia
Tri-Core Plastics Ltd.	British Columbia
Viking Pacific Products Ltd.	British Columbia
Legay Fibreglass	Nova Scotia
Gross Plastics Ltd.	Ontario
Mid-Canada Fibreglass Ltd	Ontario
AP-Chem	Prince Edward Is.
Palnor Container	Saskatchewan
Argent Chemical Laboratories Inc.	Washington

Clothing

Aquamarine Supply Ltd.	British Columbia
Leckie's Marine Equipment	Nova Scotia
Best Glove Malufacturing Ltd.	Quebec
J.L. Eagar Inc.	Utah

Compressor Packages

Rotair Industries, Ltd.	British Columbia

Computer Equipment

Seastar Instruments Ltd.	British Columbia
Island Science	California

Concrete Barges

Ajatan	British Columbia
Cefar Designs Ltd.	British Columbia
Ouest Construction Ltd.	British Columbia
Seagard Construction & Supply Ltd.	British Columbia
Topper Floating Structures Ltd.	British Columbia

Construction Supplies

Gibsons Building Supplies	British Columbia
Quadra Island Building Supplies	British Columbia
West Fraser Building Supplies	British Columbia
Dunlop Construction Products Inc.	Ontario

Conveyors

United Agri Systems Ltd.	Alberta
United Agri Systems Ltd.	British Columbia

Cryogenic Freezers

Morris & Associates	North Carolina
Airco Industrial Gases	New Jersey
Air Products and Chemicals, Inc.	Pennsylvania

Custom Aquarium Systems

Water Works Aquarium Maintenance	Florida

Customized Tanks

A&R Tanks Ltd.	British Columbia
Pacific Rim Aqua Supplies Ltd.	British Columbia
Westco Fibreglass	British Columbia
Fibreglass Structures, Inc.	Montana
Kustom City Fibreglass	Montana
Frigid Units, Inc.	Ohio

Deisel Engines

Frontier Equipment Limited	British Columbia
Frontier Equipment Ltd.	British Columbia
Sealand Sales Ltd.	British Columbia
Simson-Maxwell	British Columbia
Summer Equipment Ltd.	British Columbia

Diving Equipment

Brooks Wetsuit Ltd.	British Columbia
Diving Locker	British Columbia
Egmont Marina & Resort	British Columbia
Gemma Aquatics Consultant	British Columbia
Kocher's Diving Locker	British Columbia

Dock Cranes

Ganiron	British Columbia
Kingfisher Boats and Docks	British Columbia
Ocean Harvest Products Ltd.	British Columbia
Quadra Tools	British Columbia

Docks, Piers

Ajatan	British Columbia
Kingfisher Boats and Docks	British Columbia
Quadra Tools	British Columbia
Topper Floating Structures Ltd.	British Columbia

Dry Ice Products

Ice Age Ice Products	British Columbia
Ocean Coast Dry Ice	British Columbia
Zero-Pak Products Ltd.	British Columbia

Electronics

Seastar Instruments Ltd.	British Columbia
Aquatic Eco-Systems Inc.	Florida
Motorola C & E, Inc.	Illinois
Atlantic Purification Systems	Nova Scotia
Vemco Ltd.	Nova Scotia
Yellow Springs Instrument Company Inc.	Ohio
Beckman Instruments	Ontario
Exact Weigh Scales Co.	Ontario
Ketchum Manufacturing	Ontario
M.S.E. Engineering Systems Ltd.	Ontario
Western Scientific Services Ltd.	Ontario
Hydro Bios	Quebec
Laval Lab. Inc.	Quebec
Leeds & Northrup Instruments	Quebec
Fritz Aquaculture	Texas
Argent Chemical Laboratories Inc.	Washington

Feed Extrusion Systems

Wenger International	Kansas

Feeding Systems

United Agri Systems Ltd.	Alberta
Farmsys Industries, Inc.	Arkansas
Aquatess (Canada) Ltd.	British Columbia
IAS Products Ltd.	British Columbia
Scantech Resources Ltd.	British Columbia
Trouw & Co. B.V. International	British Columbia
United Agri Systems Ltd.	British Columbia
Viking Pacific Products Ltd.	British Columbia
Aqua-Mana	California
Blue Shrimp Farms International	California
Emerald Systems International	California
Aquaculture Food Farms	Florida
Clements Farm Service	Florida
Lippert	Florida
Brambles Trout Farms	Georgia
Babington Enterprises Inc.	Idaho
Harrington Manufacturing	Idaho
Mariculture Equipment Development Corporation	Idaho
Midwest Specialty Products Co.	Illinois
Hallock Aquaculture Research Center	Kansas
Poly Processing Co., Inc.	Louisiana
Ahlstrom America Inc.	Michigan
Point Farms Industries	Missouri
Geddie Machine & Repair Shop	Mississippi
Indianola Metal Co.	Mississippi
Fattig Fish Hatchery	Nebraska
ATP Corporation	Ohio
Aquafarms Canada Inc.	Ontario
Nielsen Metal Industries	Oregon
The North Star Company	Oregon
Boatcycle Company	Texas
Lehman H. Feeder Inc.	Texas
Sort-Rite International, Inc.	Texas
Sweeney Enterprises, Inc.	Texas
Creative Micro Controls	Washington
Sea Springs Co.	Washington
Liberty Enterprises	Wisconsin

Feeding Systems: Automatic

Aquatess (Canada) Ltd.	British Columbia
IAS Products Ltd.	British Columbia
Scantech Resources Ltd.	British Columbia
Trouw & Co. B.V. International	British Columbia
Viking Pacific Products Ltd.	British Columbia
Clements Farm Service	Florida
Lippert	Florida
Ahlstrom America Inc.	Michigan

Fencing

U.S. Wholesale Fence, Inc.	Florida

Fibreglass Materials

Aquamarine Supply Ltd.	British Columbia
Aquatic Industries Ltd.	British Columbia
Coast Fiber - Tek Products Ltd.	British Columbia
Sanderson Industries Ltd.	British Columbia
Outback Marine	Florida
Baileys Plastic Fabrication	Nova Scotia
Canlab	Ontario
Crystaplex Plastics Ltd.	Ontario
Miller Plastics Ltd.	Ontario
A Marois, Inc.	Quebec
Crystaplex Plastics Ltd.	Quebec
Buford Bait Co. Inc.	Tennessee

Fibreglass Tanks

Down to Earth Fibreglass	California
Emerald Systems International	California
Florida Glass Master	Florida
Outback Marine	Florida
Hallock Aquaculture Research Center	Kansas
Beatty, Betty	Louisiana
Fibreglass Structures, Inc.	Montana
Kustom City Fibreglass	Montana
Solar Components Corporation	New Hampshire
Empire Fibreglass Products	New York
Fritz Aquaculture	Texas
Red Ewald, Inc.	Texas
Rowland Fibreglass, Inc.	Texas
Reiff Fibreglass Co.	Washington

Filter Screens

Tetko, Inc.	New York

Filtration Systems

Crescent Research Chemicals	Arizona
Aquarex Systems Ltd.	British Columbia
Aquatess (Canada) Ltd.	British Columbia
Scantech Resources Ltd.	British Columbia
Sea Corral Ltd.	British Columbia
Viking Pacific Products Ltd.	British Columbia
Aquaneering	California
Aquarectics Systems Inc.	California
Aquarium Sales and Service Inc.	California
Aquatic Life Services	California
East West Minerals, Inc.	California
G.K. Fish Hatchery	California
Rasaco Industries	California
AREA	Florida
Aquaculture Food Farms	Florida
Aquascapes of Central Florida	Florida
Aquatec Systems, Inc.	Florida
Florida Aqua Farms	Florida
Bartholomew Aquatic Services	Hawaii
Aquaculture Technologies Inc.	Indiana
Hallock Aquaculture Research Center	Kansas
Beatty, Betty	Louisiana
S.P. Engineering, Inc.	Massachusetts
Sea Plantations	Massachusetts
C-TEC, Inc.	Maryland
KOI Unlimited	Maryland
Waterlife	Maryland
Atlantic Purification Systems	Nova Scotia
Aqua-Line Technologies	Ohio
Aquatic Research Co.	Ohio
Canoppas Ltd.	Ontario
Trojan Technologies Inc.	Ontario
Fresh-Culture Systems, Inc.	Pennsylvania
Met-Pro Corp., Fybroc Division	Pennsylvania
Woehrle's Wholesale Bait	Pennsylvania
Fritz Aquaculture	Texas
Red Ewald, Inc.	Texas
Neptune Dynamics	Washington

Fish Pens

Master Marine (Canada) Ltd.	British Columbia
Ocean Pacific Marine Industries Ltd.	British Columbia
Oppdrett Service Canada Ltd.	British Columbia
Pacific Net and Twine Ltd	British Columbia
Polar Cirkel A/S	British Columbia
Powell River Net Loft Inc.	British Columbia
Scantech Resources Ltd.	British Columbia
Sea Corral Ltd.	British Columbia
Tapper Floating Structures Ltd.	British Columbia
Viking Pacific Products Ltd.	British Columbia
Bliss Fish Net Company	Mississippi
Sterling Net & Twine Company	New Jersey
Tapper Floating Structures Ltd.	Ontario
Industrial Plastics, Inc.	Washington

Equipment

Fish Pumps

Aqua Steel Systems Inc.	British Columbia
Inversac Technology Inc.	British Columbia
Pacific Rim Aqua Supplies Ltd.	British Columbia
Scantech Resources Ltd.	British Columbia
Aquatic Eco-Systems Inc.	Florida
Inversac Technology Inc.	Nova Scotia
Mortec Inc	Nova Scotia
Jacuzzi Canada Ltd.	Ontario
Little Mertz Ltd.	Ontario
Ryan Engineering Inc.	Washington

Floating Homes

Ajatan	British Columbia
Seagard Construction & Supply Ltd.	British Columbia
Topper Floating Structures Ltd.	British Columbia

Floating Hydroponic Systems

Marefish Research International	Florida

Flotation Products

Palmer Container	Alberta
Ajatan	British Columbia
Aqua Steel Systems Inc.	British Columbia
Century Plastics Ltd.	British Columbia
Classeo Enterprises Ltd.	British Columbia
DICO	British Columbia
Ocean Pacific Marine Industries Ltd.	British Columbia
Plast-Fab Ltd.	British Columbia
Quadra Tools	British Columbia
Scantech Resources Ltd.	British Columbia
Topper Floating Structures Ltd.	British Columbia
Tri-Core Plastics Ltd.	British Columbia
Viking Pacific Products Ltd.	British Columbia
Leckie's Marine Equipment	Nova Scotia
Palmer Container	Saskatchewan

Freezers

Lippert	Florida
Frigoscandian Contracting, Inc.	Washington
Patrick J. Mitchell Corporation	Washington

Gantry Cranes

Gantex	British Columbia

Gas Heaters

I.C.G. Liquid Gas Ltd.	British Columbia
Fritz Aquaculture	Texas

General Supplier

Ahousat General Store	British Columbia
E.A. Towns Fishing Supplies Ltd.	British Columbia
Sea Farm Trading Inc.	British Columbia
Tasco Supplies Ltd.	British Columbia
Waring Marine	British Columbia
Leckie's Freshwater Fishing Supplies	Manitoba
Fritz Aquaculture	Texas

Generators

Dependable Turbines Ltd.	British Columbia
Frontier Equipment Limited	British Columbia
Frontier Equipment Ltd.	British Columbia
Pacific Generator and Marine Ltd.	British Columbia
Simson-Maxwell	British Columbia
Summer Equipment Ltd.	British Columbia
Aquatic Eco-Systems Inc.	Florida
FreshOcean Industries Ltd.	Nova Scotia
Xorbox Corporation	New York
Trillium Windmills Inc.	Ontario

Grading/Sorting

McCrary's Farm Supply	Arkansas
Sortaweigh USA, Inc.	Arkansas
Waring Marine	British Columbia
E-Line USA	Colorado
VMG Industries Inc.	Colorado
Magic Valley Heli-Arc Mfg.	Idaho
Baader North America Corporation	Massachusetts
Delta Net & Twine Co.	Mississippi
Hord Ltd.	Newfoundland
Atlantic Purification Systems	Nova Scotia
Baader Canada Ltd.	Nova Scotia
Heiken Metal Industries	Oregon
Charles Willam Knight Enterprises Ltd.	Quebec
Memphis Net & Twine	Tennessee
Boatcycle Company	Texas
Commerce Welding & Manufacturing Company	Texas
Sort-Rite International, Inc.	Texas
Ryan Engineering Inc.	Washington
Durabrane Dignet	Wisconsin
Liberty Enterprises	Wisconsin

Growout Trays

Jumping Mullet, Inc.	Florida
Weasel Bay Seafarms	Washington

Hardware

CPI Equipment Ltd.	British Columbia
Ocean Pacific Marine Industries Ltd.	British Columbia
Pacific Generator and Marine Ltd.	British Columbia
Scantech Resources Ltd.	British Columbia
Viking Pacific Products Ltd.	British Columbia

Hatchery Equipment

Dunsorst Corporation	Arkansas
Tri-Core Plastics Ltd.	British Columbia
Aqua-Mana	California
Aquaculture Bio-Marine, Inc.	California
Blue Shrimp Farms International	California
East West Minerals, Inc.	California
Emerald Systems International	California
E-Line USA	Colorado
Hansen Weatherport	Colorado
Wiley Weber, Inc.	Colorado
Sweeney Aquamatic	Connecticut
AREA	Florida
Miami Aquaculture, Inc.	Florida
Hawaii Aquafarms	Hawaii
Harrington Manufacturing	Idaho
Midwest Specialty Products Co.	Illinois
Hatfield Aquaculture Research Center	Kansas
Quality Pet Supply	Massachusetts
S.P. Engineering, Inc.	Massachusetts
Aquacenter, Inc.	Mississippi
ATP Corporation	Ohio
Eco Enterprises	Washington
Salmon Trout Advisory Service	Washington
Midland Plastics, Inc.	Wisconsin

Hatchery Tanks

Duraorah Corporation	Arkansas
Aquarex Systems Ltd.	British Columbia
Pacific Rim Aqua Supplies Ltd.	British Columbia
Scantech Resources Ltd.	British Columbia
Sea Farm Trading Inc.	British Columbia
Tri-Core Plastics Ltd.	British Columbia
Viking Pacific Products Ltd.	British Columbia
Westco Fibreglass	British Columbia
Aquatec International, Inc.	Connecticut
Aquaculture Feed Farms	Florida
Harrington Manufacturing	Idaho
Kustom City Fibreglass	Montana
Drummond McCall Inc.	New Brunswick
Eastern Fish Farm Supply	New Brunswick
Bridport Brownell Ltd.	Nova Scotia
Legay Fibreglass	Nova Scotia
Empire Fibreglass Products	New York
Modutank, Inc.	New York
Caribar Products Ltd.	Ontario
Gross Plastics Ltd.	Ontario
Mid-Canada Fibreglass Ltd	Ontario
AP-Chem	Prince Edward Is.
Palmer Container	Saskatchewan
Rowland Fibreglass, Inc.	Texas
Argent Chemical Laboratories Inc.	Washington
Reiff Fibreglass Co.	Washington
Great Lakes Manufacturing	Wisconsin
Peterson Fibreglass Laminates	Wisconsin

Hatchery Trays

Aquatera (Canada) Ltd.	British Columbia
Pacific Rim Aqua Supplies Ltd.	British Columbia
Scantech Resources Ltd.	British Columbia
Sea Farm Trading Inc.	British Columbia
Tri-Core Plastics Ltd.	British Columbia
Viking Pacific Products Ltd.	British Columbia
Eastern Fish Farm Supply	New Brunswick
Drummond McCall Inc.	Newfoundland
Drummond McCall Inc.	Nova Scotia

Hatching Troughs

Pacific Rim Aqua Supplies Ltd.	British Columbia
Sea Farm Trading Inc.	British Columbia
Fibreglass Structures, Inc.	Montana
Kustom City Fibreglass	Montana
Legay Fibreglass	Nova Scotia
Gross Plastics Ltd.	Ontario
Mid-Canada Fibreglass Ltd	Ontario
AP-Chem	Prince Edward Is.
Argent Chemical Laboratories Inc.	Washington

Hauling Blocks

Hugh Forsyth Enterprises	British Columbia

Hoists

Hugh Forsyth Enterprises	British Columbia

Hoppers, Bins

United Agri Systems Ltd.	Alberta
United Agri Systems Ltd.	British Columbia

Hydraulic Equipment

Frontier Equipment Ltd.	British Columbia

Ice Making Machines

Crystal Tips Ice Products	California
Hay River Corporation	Florida
Howe Corporation	Illinois
Morris & Associates	North Carolina
Refrigeration Systems International	Texas
North Star Ice Equipment Corp., Inc.	Washington
R.S.I. Industries, Inc.	Wisconsin

Industrial Supplies

CPI Equipment Ltd.	British Columbia
Fields Welding & Industrial Supplies Ltd.	British Columbia
Sipco Industrial Products Ltd.	British Columbia
Tri-Pyramid Industrial	British Columbia
Windsor Plywood	British Columbia

Instrumentation

Aanderaa Instruments Ltd.	British Columbia
Applied Microsystems Ltd.	British Columbia
CPI Equipment Ltd.	British Columbia
Frederick Geertz Ltd.	British Columbia
Malcolm Campbell & Son Ltd.	British Columbia
Neotech Designs Ltd.	British Columbia
Seastar Instruments Ltd.	British Columbia
Aquatic Eco-Systems Inc.	Florida
Thermofilter Corporation	Florida
Royce Instrument Corporation	Louisiana
Marsh-McBirney Inc.	Maryland
Atlantic Purification Systems	Nova Scotia
Vanco Ltd.	Nova Scotia
Yellow Springs Instrument Company Inc.	Ohio
Beckman Instruments	Ontario
Exact Weigh Scales Co.	Ontario
Kerchum Manufacturing	Ontario
M.S.E. Engineering Systems Ltd.	Ontario
Mandel Scientific	Ontario
Sargent-Welch Scientific of Canada Ltd.	Ontario
Western Scientific Services Ltd.	Ontario
Leeds & Northrup Instruments	Pennsylvania
Hydro Bios	Quebec
Level Lab, Inc.	Quebec
Leeds & Northrup Instruments	Quebec
Fritz Aquaculture	Texas
Argent Chemical Laboratories Inc.	Washington
Klaus Mayn Enterprises	Washington

Insulation Supplies

Clasano Enterprises Ltd.	British Columbia
DICO	British Columbia
Fields Welding & Industrial Supplies Ltd.	British Columbia
Plasti-Fab Ltd.	British Columbia
Strapex Strapping Systems Ltd.	British Columbia
Zero-Pak Products Ltd.	British Columbia
Staff Industries, Inc.	Michigan

Japanese Scallop Bags

Innovative Aquaculture Products Ltd.	British Columbia

Knives

Trautdale Ranch, Inc.	Missouri
Lewis Enterprises	New York
Marty the Knife Man, Inc.	New York

Laboratory Equipment

Fisher Scientific Ltd.	Alberta
Fisher Scientific Limited	British Columbia
Aquaculture Bio-Marine, Inc.	California

Equipment

Kate Scientific Instrument Corporation	California
Hach Company	Colorado
International Oxygen Corporation	Connecticut
Sweeney Aquarists	Connecticut
AREA	Florida
Aquatic Eco-Systems Inc.	Florida
Fisher Scientific Ltd	Nova Scotia
Fisher Scientific Ltd.	Ontario
Mandel Scientific	Ontario
Sargent-Welch Scientific of Canada Ltd.	Ontario
Western Scientific Services Ltd.	Ontario
Fisher Scientific Ltd.	Quebec
Omnidata International	Utah
Eco Enterprises	Washington
Evergreen Resources, Inc.	Washington
Floy Tag & Manufacturing, Inc.	Washington
Midland Plastics, Inc.	Wisconsin

Lantern Nets

Innovative Aquaculture Products Ltd.	British Columbia
West Pacific Industries Ltd.	British Columbia
Wescot Bay Seafarms	Washington

Liquid Nitrogen

Air Products and Chemicals, Inc.	Pennsylvania

Liquid Oxygen

Canadian Liquid Air Ltd.	British Columbia
Valley Oxygen Supplies	British Columbia

Live Haul Tanks

Anderson Bait Distributors	Arkansas
Dunaroll Corporation	Arkansas
F & F Boat Repair	Arkansas
Pacific Rim Aqua Supplies Ltd.	British Columbia
Aquaroofing	California
Emerald Systems International	California
Aquaculture Food Farms	Florida
Magic Valley Heli-Arc Mfg.	Idaho
Lambrish Live Fish Hauling	Missouri
Britzon Snowmel Ltd.	Nova Scotia
Empire Fiberglass Products	New York
Carroll Company	Pennsylvania
AP-Chem	Prince Edward Is.
Charles English, Inc.	Quebec
Nylon Net Company	Tennessee
Biostyde Company	Texas
Rowland Fiberglass, Inc.	Texas
Argent Chemical Laboratories Inc.	Washington
Reid Fiberglass Co.	Washington
Great Lakes Manufacturing	Wisconsin
Peterson Fiberglass Luminaire	Wisconsin

Marine Supplies

John Leckie Ltd.	Alberta
Frontier Equipment Ltd.	British Columbia
Ocean Pacific Marine Industries Ltd.	British Columbia
Quadra Tools	British Columbia
Scantech Resources Ltd.	British Columbia

Mesh

Internet, Inc.	Minnesota
Sherwood Mills Cloth Co., Inc.	New York
Tasko, Inc.	New York

Mussel Culture Equipment

Aranet (1987) Ltd.	Nova Scotia
Global Marine Products Ltd.	Nova Scotia
Island Metal Fabricators Ltd.	Prince Edward Is.
REA-FAC Agencies Ltd.	Prince Edward Is.
NorPlex Inc.	Washington

Natural Gas

I.C.G. Liquid Gas Ltd.	British Columbia

Net & Twine

McCrary's Farm Supply	Arkansas
Clemens Farm Service	Florida
Tensar Corp.	Georgia
Riverdale Mills Corp.	Massachusetts
Lakefish Net & Twine	Manitoba
New Dimensions Aquaculture Supply	Manitoba
Sterling Net & Twine Company	New Jersey
Leckie's Marine Equipment	Nova Scotia
Polytech Netting Industries	Ontario
Research Nets, Inc.	Washington

Net Coating

Alex Milne Associates, Ltd.	Ontario

Net Pens

Pacific Net and Twine Ltd	British Columbia
Redden Net Company Ltd.	British Columbia
Biloxi Fish Net Company	Mississippi
Sterling Net & Twine Company	New Jersey
Ingua Corporation	New York
Industrial Plastics, Inc.	Washington
Lummi Fisheries Supply Inc.	Washington

Net Washers

Hercules Machine Company Inc.	British Columbia
Sea Farm Trading Inc.	British Columbia

Netting, Web

Canada Netings Inc.	British Columbia
Eric's of Nanaimo Ltd.	British Columbia
Pacific Net and Twine Ltd	British Columbia
Pacific West Net Company Ltd.	British Columbia
Powell River Net Loft Inc.	British Columbia
Redden Net Company Ltd.	British Columbia
Tri-Core Plastics Ltd.	British Columbia
Viking Pacific Products Ltd.	British Columbia
Internet, Inc.	Minnesota
Biloxi Fish Net Company	Mississippi
Forsea Ltd.	New Brunswick
Endurance Net	New Jersey
Sterling Net & Twine Company	New Jersey
Franklin Net & Twine	Ontario
Olmstead Foods Ltd.	Ontario
Gerrard Mills Ltd.	Quebec
NorPlex Inc.	Washington

Not Specified

Phifer Wire Products, Inc.	Alabama
Tubal Steel Service, Inc.	Alabama
B-S Industries Ltd.	British Columbia
Barski Industries (1985) Ltd.	British Columbia

Flashfire Fabricators Ltd.	British Columbia
Marl-Con	British Columbia
Marlchem Ventures Inc.	British Columbia
Northwest Consolidated Supply Ltd.	British Columbia
Sea Star Aquarium Systems	British Columbia
Sea Test	British Columbia
Shields Industries Division Inc.	British Columbia
Vancouver Island Parts Ltd.	British Columbia
Waterborn Industries	British Columbia
American Veterinary Identification Devices Inc	California
Digisoft Computing	California
Marineland Aquarium Products	California
PSI Market Equipment, Inc.	California
Clements Farm Service	Florida
Fish Farmers Store	Idaho
Culver Fish Farm	Kansas
Potter Tool Company	Kansas
McCauley Brothers, Inc.	Kentucky
Goodall Rubber Co. of Canada Ltd.	Manitoba
Aquarium Products	Maryland
Agway, Inc.	New York
MSRC SUNY Stony Brook	New York
Siegal Chemical Export Co.	New York
Hubert Company	Ohio
Diporah Manufacturing Co.	Pennsylvania
Aquaresearch Ltd.	Quebec
Aqualand Industries	Saskatchewan
Agricultural Software Consultants Inc.	Texas
Fritz Aquaculture	Texas
Bill Nelson Co.	Washington

Oceanographic Instruments

Aanderaa Instruments Ltd.	British Columbia
Applied Microsystems Ltd.	British Columbia

Oyster Culture Equipment

Century Plastics Ltd.	British Columbia
Innovative Aquaculture Products Ltd.	British Columbia
Drummond McCall Inc.	New Brunswick
Drummond McCall Inc.	Newfoundland
Drummond McCall Inc.	Nova Scotia
NorPlax Inc.	Washington

Oyster Lay Rope

England Marine	Washington

Oyster Shucker

A.E.C.	Virginia

Packaging Equipment

West Coast Foodpak Systems Ltd	British Columbia
Zero-Fish Products Ltd.	British Columbia

Pearl Nets

Innovative Aquaculture Products Ltd.	British Columbia

Equipment

Culture Fisheries Corp.	Washington
HorPlex Inc.	Washington
Wescot Bay Seafarms	Washington

Photovoltaics

Solace Micropower Engineering Ltd.	British Columbia
Sohsk Solar Energy Ltd.	British Columbia

Pipes & Fittings

CPI Equipment Ltd.	British Columbia
Northwest Plastics Ltd	British Columbia
Pacific Polypipe Ltd.	British Columbia
Pond Dam Piping, Ltd.	Georgia
Drummond McCall Inc.	New Brunswick
Scepter Manufacturing Company Ltd.	New Brunswick
Drummond McCall Inc.	Newfoundland
Drummond McCall Inc.	Nova Scotia
Crowle Fittings Ltd.	Ontario
Scepter Manufacturing Company Ltd.	Quebec

Plant Floor Equipment

Sullivan Strong Scott Ltd.	Alberta
Nissan Forklift	British Columbia
Speedy Fork Lift Ltd.	British Columbia
Tri-Pyramid Industrial	British Columbia
Sure Step of Los Angeles County	California

Plastic Bags

Union Carbide Canada Ltd.	Ontario

Plastic Cages

Aquarex Systems Ltd.	British Columbia
Master Marine (Canada) Ltd.	British Columbia
Ocean Pacific Marine Industries Ltd.	British Columbia
Polar Cirkel A/S	British Columbia
Tri-Core Plastics Ltd.	British Columbia
West Pacific Industries Ltd.	British Columbia
Dupont Canada Inc.	Ontario
Tepper Floating Structures Ltd.	Ontario

Plastic Fittings

CPI Equipment Ltd.	British Columbia
Fabco Plastics Western (B.C.) Ltd.	British Columbia
Aquarotics Systems Inc.	California
Scepter Manufacturing Company Ltd.	New Brunswick
Atlantic Purification Systems	Nova Scotia
Scepter Manufacturing Company Ltd.	Quebec

Plastic Netting

Innovative Aquaculture Products Ltd.	British Columbia
New World Skyscreen Co.	British Columbia
Ocean Pacific Marine Industries Ltd.	British Columbia
Tri-Core Plastics Ltd.	British Columbia
TWP, Inc.	California
Internet, Inc.	Minnesota
Forsea Ltd.	New Brunswick
J.A. Cissel Manufacturing Co.	New Jersey
Franklin Net & Twine	Ontario
Olmstead Foods Ltd.	Ontario
ADPI Enterprises Inc.	Pennsylvania
Gerrard Mills Ltd.	Quebec
Nafe Plastics Inc.	Texas
Lummi Fisheries Supply Inc.	Washington

Plastic Pipe

CPI Equipment Ltd.	British Columbia
Cannon West Pipe Ltd.	British Columbia
Fabco Plastics Western (B.C.) Ltd.	British Columbia
Master Marine (Canada) Ltd.	British Columbia
Pacific Polypipe Ltd.	British Columbia
Polar Cirkel A/S	British Columbia
Scepter Manufacturing Company Ltd.	British Columbia
Scepter Manufacturing Company Ltd.	Manitoba
Scepter Manufacturing Company Ltd.	New Brunswick
Atlantic Purification Systems	Nova Scotia
Scepter Manufacturing Company Ltd.	Quebec
Scepter Manufacturing Company Ltd.	Saskatchewan

Plastic Tanks

Palmer Container	Alberta
Aquarex Systems Ltd.	British Columbia
Master Marine (Canada) Ltd.	British Columbia
Pacific Rim Aqua Supplies Ltd.	British Columbia
Par Marketing	British Columbia
Scepter Manufacturing Company Ltd.	British Columbia
Tri-Core Plastics Ltd.	British Columbia
Westco Fibreglass	British Columbia
King Plastics, Inc.	California
Bonar Plastics Western Ltd.	Manitoba
Scepter Manufacturing Company Ltd.	Manitoba
Polytank, Inc.	Minnesota
Scepter Manufacturing Company Ltd.	New Brunswick

Atlantic Purification Systems	Nova Scotia
Bridport Brownell Ltd.	Nova Scotia
Mid-Canada Fibreglass Ltd	Ontario
AP-Chem	Prince Edward Is.
Scepter Manufacturing Company Ltd.	Quebec
Palmer Container	Saskatchewan
Scepter Manufacturing Company Ltd.	Saskatchewan

Plastic Totes

Palmer Container	Alberta
Century Plastics Ltd.	British Columbia
Northwest Plastics Ltd	British Columbia
Par Marketing	British Columbia
Strapex Strapping Systems Ltd.	British Columbia
King Plastics, Inc.	California
Can-Am Containers Ltd.	Nova Scotia
Dye Plastics, Inc.	Washington
Sound Environmental Inc.	Washington

Plastic Valves

CPI Equipment Ltd.	British Columbia
Champion Industries Ltd.	British Columbia
Fabco Plastics Western (B.C.) Ltd.	British Columbia
Scepter Manufacturing Company Ltd.	British Columbia
Scepter Manufacturing Company Ltd.	New Brunswick
Scepter Manufacturing Company Ltd.	Quebec

Plastic Welders

Heating Plastics	British Columbia
Scepter Manufacturing Company Ltd.	Saskatchewan

Plastics: General

Beaver Plastics Ltd.	Alberta
Columbia Plastics Ltd.	British Columbia
Crystaplex Plastics Ltd.	British Columbia
International Plastics Ltd.	British Columbia
Mansonville Plastics (BC) Ltd.	British Columbia
Northwest Plastics Ltd	British Columbia
Thunderbird Plastics Ltd.	British Columbia
Acry-Tec	California
King Plastics, Inc.	California
Gulf Coast Plastics	Florida
Modern Polymers, Inc.	Florida
Bonar Plastics Western Ltd.	Manitoba
Crystaplex Plastics Ltd.	Manitoba
Bonar Plastics Ltd.	New Brunswick
Crystaplex Plastics Ltd.	New Brunswick
Canus Plastics Ltd.	Ontario
Crystaplex Plastics Ltd.	Ontario
Fabco Plastics	Ontario
Fabricated Plastics	Ontario
Miller Plastics Ltd.	Ontario
Scepter Manufacturing Company Ltd.	Ontario
Union Carbide Canada Ltd.	Ontario
Bonar Plastics, Inc.	Oregon
A Marois, Inc.	Quebec
Crystaplex Plastics Ltd.	Quebec

Pond Liners

Aquarex Systems Ltd.	British Columbia
AREA	Florida
Aquascapes of Central Florida	Florida
Aquatic Systems & Research, Inc.	Florida
Hawaii Aquafarms	Hawaii
KDI Unlimited	Maryland
Wolstein S. Aquatic Farm and Nursery	Maryland
Medstark, Inc.	New York

ATP Corporation	Ohio
EcoScience	Pennsylvania

Power Inverters

Aquamarine Supply Ltd.	British Columbia
Dependable Turbines Ltd.	British Columbia
Frontier Equipment Limited	British Columbia
Solaco Micropower Engineering Ltd.	British Columbia
Tasken Power Ltd.	British Columbia

Predator Control

New World Skyscreen Co.	British Columbia
Internet, Inc.	Minnesota
Drummond McCall Inc.	New Brunswick
Drummond McCall Inc.	Newfoundland
Arsenal (1987) Ltd.	Nova Scotia
Drummond McCall Inc.	Nova Scotia
Lummi Fisheries Supply Inc.	Washington

Pressure Washers

Aquamarine Supply Ltd.	British Columbia
Frontier Equipment Ltd.	British Columbia
Karcher Cleaning Systems Inc.	British Columbia
Malcolm Campbell & Son Ltd.	British Columbia
Sipco Industrial Products Ltd.	British Columbia
U.S. Systems, Inc.	Florida

Processing Equipment

Sullivan Strong Scott Ltd.	Alberta
Lippert	Florida
Sterling Systems International Inc.	Florida
Harrington Manufacturing	Idaho
Magic Valley Heli-Arc Mfg.	Idaho
Baader North America Corporation	Massachusetts
Robert Reiser & Company, Inc.	Massachusetts
Pisces Industries, Ltd.	Michigan
Rebel Butcher Supply	Mississippi
Nord Ltd.	Newfoundland
Baader Canada Ltd.	Nova Scotia
Stark Systems, Inc.	New York
Crystaplex Plastics Ltd.	Ontario
Miller Plastics Ltd.	Ontario
Simrar, Inc.	Ontario
Crystaplex Plastics Ltd.	Quebec
Sort-Rite International, Inc.	Texas
Evergreen Resources, Inc.	Washington
Pyxis Engineering Inc.	Washington
Liberty Enterprises	Wisconsin
Weiler & Company	Wisconsin

Pumps

CPI Equipment Ltd.	British Columbia
Flygt Canada	British Columbia
Malcolm Campbell & Son Ltd.	British Columbia
Aaroreon Sprinkler Co.	California
Aquaseeding	California
Laing Termotech, Inc.	California
Crisafi & Pump Co., Inc.	Connecticut
AREA	Florida
Aquatic Eco-Systems Inc.	Florida
Gould Pumps	Florida
Lippert	Florida
Kelleman Manufacturing	Iowa
Magic Valley Heli-Arc Mfg.	Idaho
Air Diffusion Systems	Illinois
Aquaculture Resources Midwest	Illinois
Westmoor Ltd.	Illinois

Equipment

Sea Plantations	Massachusetts
KOI Unlimited	Maryland
The Aquarium Inc.	Maryland
Indianola Metal Co.	Mississippi
J.C. Pras Ltd.	Newfoundland
Atlantic Purification Systems	Nova Scotia
Legay Fibreglass	Nova Scotia
Conde Pumps	New York
O' Brock Windmill Distributors	Ohio
Sommers Motor Generator Sales Ltd.	Ontario
Barebo, Inc.	Pennsylvania
Met-Pro Corp., Fybroc Division	Pennsylvania
Sort-Rite International, Inc.	Texas
Neptune Dynamics	Washington
Liberty Enterprises	Wisconsin

Raceways

Kan Allen	Arkansas
Emerald Systems International	California
Outback Marine	Florida
Wainani Kai	Hawaii
Idaho Aquatic Foods	Idaho
Tunnel Creek	Idaho
Midwest Speciality Products Co.	Illinois
Poly Processing Co., Inc.	Louisiana
C-TEC, Inc.	Maryland
Empire Fibreglass Products	New York
Modutank, Inc.	New York
Canbar Products Ltd.	Ontario
Gross Plastics Ltd.	Ontario
Mid-Canada Fibreglass Ltd	Ontario
AP-Chem	Prince Edward Is.
Aqua-Insa	Texas
Red Ewald, Inc.	Texas
Rowland Fibreglass, Inc.	Texas
Argent Chemical Laboratories Inc.	Washington
Reiff Fibreglass Co.	Washington
Liberty Enterprises	Wisconsin

Radio-Electronics

Frederick Goertz Ltd.	British Columbia
Spilsbury Communications Ltd.	British Columbia

Recirculation Systems

IAS Products Ltd.	British Columbia
Aquadyne, Inc.	California
Frigid Units, Inc.	Ohio
Aquacultech Ltd.	Ontario
Canadian Aquaculture Systems	Ontario
Steen Contractors Ltd.	Prince Edward Is.
Neptune Dynamics	Washington

Red Onion Bags

Burnaby Bag & Burlap Company Ltd.	British Columbia
Innovative Aquaculture Products Ltd.	British Columbia

Refrigerant Gel-Paks

Zer-O-Loc Ltd.	British Columbia
Zero-Pak Products Ltd.	British Columbia
World Container Corporation	Minnesota

Refrigeration Equip.

Naraqua Industries, Inc.	British Columbia
Ocean Coast Dry Ice	British Columbia
Polar Industries Ltd.	British Columbia
Acry-Tec	California
Universal Marine Industries	California
Frigoscandian Contracting, Inc.	Washington

Rope Products

Hoyle Distributors Ltd.	Alberta
Hoyle Distributors Ltd.	Alberta
Hoyle Industries Ltd.	British Columbia
Master Marine (Canada) Ltd.	British Columbia
Ocean Pacific Marine Industries Ltd.	British Columbia
Pacific Net and Twine Ltd	British Columbia
Lakefish Net & Twine	Manitoba
Drummond McCall Inc.	New Brunswick
Forsea Ltd.	New Brunswick
Atlantic North Ltd.	Newfoundland
Drummond McCall Inc.	Newfoundland
Aranet (1987) Ltd.	Nova Scotia
Drummond McCall Inc.	Nova Scotia
Lockie's Marine Equipment	Nova Scotia
Franklin Net & Twine	Ontario
Greening, Donald Co., Ltd.	Ontario
Ormstead Foods Ltd.	Ontario
Polytech Netting Industries	Ontario
Atlantic Braids Ltd.	Quebec
Garrard Mills Ltd.	Quebec
NorPlex Inc.	Washington

Screens

C.E. Shepherd Co. Inc.	Texas

Seacages

Topper Floating Structures Ltd.	British Columbia
Viking Pacific Products Ltd.	British Columbia
Eastern Fish Farm Supply	New Brunswick
Dupont Canada Inc.	Ontario
Viking Seacage Systems	Washington

Sheds, Shelters

Weatherhaven Resources Ltd.	British Columbia
Kordon/Alco. Manufacturing	California

Sheet Plastics

Tri-Core Plastics Ltd.	British Columbia

Shipping Supplies

Northwest Shipping Supplies Ltd.	British Columbia

Signal Bouys

Master Marine (Canada) Ltd.	British Columbia
Tideland Signal Canada Ltd.	British Columbia

Small Hydro-Power

Dependable Turbines Ltd.	British Columbia
Seagard Construction & Supply Ltd.	British Columbia
Solace Micropower Engineering Ltd.	British Columbia
Tsolum Power Ltd.	British Columbia
Small Hydro Electric Systems	Washington

Smokehouses

Vorron (Smokehouses), Inc.	Wisconsin

Steel Cages

Aqua Steel Systems Inc.	British Columbia
Kingfisher Boats and Docks	British Columbia
Topper Floating Structures Ltd.	British Columbia
Viking Pacific Products Ltd.	British Columbia
Waring Marine	British Columbia
West Pacific Industries Ltd.	British Columbia
Dupont Canada Inc.	Ontario
Topper Floating Structures Ltd.	Ontario

Steel Tanks

A&R Tanks Ltd.	British Columbia

Sterilization

Aquarefics Systems Inc.	California
Aquarium Sales and Service Inc.	California
AREA	Florida
Sterling Systems International Inc.	Florida
The Power House, Inc.	Maryland
Canoppas Ltd.	Ontario
H.G. Kalish Co. Ltd.	Ontario
Trojan Technologies Inc.	Ontario
Capital Controls Company	Pennsylvania

Storage Sheds

Kingfisher Boats and Docks	British Columbia
Quadra Tools	British Columbia

Strapping Machines

Acme Strapping Ltd.	British Columbia
Signode Canada Ltd.	British Columbia

Surveillance Systems

Lobsiger Associates Ltd.	Nova Scotia

Temperature Meters

Applied Microsystems Ltd.	British Columbia
CPI Equipment Ltd.	British Columbia
Seastar Instruments Ltd.	British Columbia
AREA	Florida
Thermafbar Corporation	Florida
Electronic Data Solutions	Idaho
Royce Instrument Corporation	Louisiana
Vemco Ltd.	Nova Scotia
Process Technology, Inc.	Ohio
Sargent-Welch Scientific of Canada Ltd.	Ontario
Taylor Instruments	Ontario
Hydro Bios	Quebec
Aquamatic Controls, Inc.	South Carolina
Creative Micro Controls	Washington
Ryan Instruments, Inc	Washington
Robinson Wholesale, Inc.	Wisconsin

Tubing

Buford Bait Co. Inc.	Tennessee

Ultraviolet Irrad.

Aquafine Corporation	California
Aquarium Sales and Service Inc.	California
AREA	Florida
Air Diffusion Systems	Illinois
The Power House, Inc.	Maryland
Aqua-Line Technologies	Ohio

Ultraviolet Water Sterilizers

Aquafine Corporation	California

Vacuum Packaging

West Coast Foodpak Systems Ltd	British Columbia
Trigon Packaging Corporation	Washington

Veterinary Equipment

Syndel Laboratories Ltd.	British Columbia
Ketchum Manufacturing	Ontario

Waste Treatment

Ray Lindsey Co.	Kansas

Water Analysis Kits

Hach Company	Colorado
Sweeney Aquamatic	Connecticut
AREA	Florida
Aquatic Eco-Systems Inc.	Florida
Electronic Data Solutions	Idaho
Orion Research Inc.	Massachusetts
Sea Plantations	Massachusetts
LaMotte Chemical Products Company	Maryland
Aquacenter, Inc.	Mississippi
KRW Electronics	Mississippi
Aqua-Line Technologies	Ohio
Capital Controls Company	Pennsylvania
Laval Lab. Inc.	Quebec
Aquamatic Controls, Inc.	South Carolina
Fritz Aquaculture	Texas
Hydrolab Corporation	Texas
Omnidata International	Utah
Eco Enterprises	Washington

Water Chiller Unit

Aquarefics Systems Inc.	California
Aquarium Sales and Service Inc.	California
Universal Marine Industries	California
Frigid Units, Inc.	Ohio
Process Technology, Inc.	Ohio
Refrigeration Systems International	Texas

Water Clarifiers

Aquafine Corporation	California
Advanced Water Systems	Washington

Water Systems

Advanced Water Systems	Washington

Weatherproof Writing Paper/Books

J.L. Darling Corporation	Washington

Weigh Scales

McCrary's Farm Supply	Arkansas
Empire Scale Company, Inc.	California
Precision Scale Company	California
Doran Scales, Inc.	Illinois
Baader North America Corporation	Massachusetts
Micro Weighing Systems, Inc.	Massachusetts

Welding & Repairs

Cobe Welding Supplies	British Columbia
Haida Welding Supplies Ltd.	British Columbia
Ocean Mist Marine Enterprises	British Columbia

Welding Supplies

Cobe Welding Supplies	British Columbia
Totem Welding Supplies Ltd.	British Columbia

Wire Rope, Cable

Northwest Wire Rope Ltd.	British Columbia
Wire Rope Industries Inc.	Washington

Wood Products

Gibsons Building Supplies	British Columbia
Quadra Island Building Supplies	British Columbia
Windsor Plywood	British Columbia

Workboats

Alstech Marine Ltd.	British Columbia
Aqua Steel Systems Inc.	British Columbia
Dolphin Industries Ltd.	British Columbia
Fishboat Trader Ltd.	British Columbia
Ocean Harvest Products Ltd.	British Columbia
Navy Island Marine Ltd.	Nova Scotia